SUPPLEMENT TO WEEKLY BULLETIN
OF THE
DEPARTMENT OF TRADE AND COMMERCE

REPRINT OF ARTICLES

DEALING WITH

RUSSIAN TRADE

PRELIMINARY REPORT

By MR. C. F. JUST
Canadian Special Trade Commissioner.

Published by Authority of Sir George E. Foster, K.C.M.G., M.P.,
Minister of Trade and Commerce.

OTTAWA
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INTRODUCTION.

The great interest manifested by Canadian manufacturers and men of business in the prospects for trade with Russia has suggested the reproduction in a form convenient for reference of the various contributions on the subject of Russian trade which have appeared from time to time in the Weekly Bulletin. The information given has been revised and rearranged and fresh material has been added with a view to facilitating the study of the requirements and capabilities of the Russian market for Canadian products. An endeavour has been made to outline the special conditions under which trade is conducted and the steps which should be taken to meet and overcome those conditions. Important changes of detail may be expected to occur both before and after the close of the present war, but it is hoped that the data provided by this supplement will be of assistance to Canadian producers in a position to consider trade with Russia. An intelligent study of the fundamental matters relating to Russian trade is to be recommended.

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DEALING WITH

RUSSIAN TRADE

I

GENERAL SURVEY.

In submitting this preliminary report on the prospects for Canadian trade in Russia it is desired to claim the indulgence of those whom it concerns in view of the exceptional circumstances under which the investigation was conducted.

The hazards and fortune of war are as incalculable as they are unexpected and it is inevitable that many changes, administrative and economic, must occur before the close of the war to modify the outlook and recast the recommendations for lines of action which to-day may seem the best for those who are contemplating the Russian market as a field for future activities.

POLAND AND THE BALTIC PROVINCES.

Out of the present situation two or three factors emerge, which are peculiar to Russia and which will have their bearing upon the trade outlook. It may be pointed out that the peoples and the areas which have mainly suffered so far the waste of war are not true Russians and truly Russian. They are the border districts and the border races—the Poles, mixed Slavs, Russian-Germans, Letts, and Jews. Moreover these districts with their commercial classes, have hitherto served as the advanced base of the German economic penetration of Russia, where also the financial and industrial interests are either directly German or controlled by Germans. Warsaw has been the German gate of Russia, and Lodz a German Manchester, and Bialystoka, a Bradford in Russia. The non-German foreign imports into this region have passed for the most part through German commission import houses. It should take some years for Poland and the Baltic provinces to recover from the devastation of war and from the dislocation of trade and industry. A visit to these parts was impossible.

RUSSIAN POWER OF RECUPERATION.

On the other hand the real Russian and the real Russian people have remained so far untouched. It is doubtful whether any conceivable scale of waste and destruction of life in the present war on the side of Russia will affect that country's economic position for any appreciable period if the past be any reliable guide in such matters. The recuperative power of Russia has invariably proved equal to every call. She has tried with impunity, economic experiments which would have seriously affected most other countries. Wars and political and social upheavals have seemingly had but little effect.

Russia internally is rich and prosperous; her national resources are very great and of infinite variety and her present population of 171,000,000, constitutes an important factor in the production of wealth. Apart from agriculture, in which

75 per cent of the population is engaged, the manufacturing and mining industries, though very considerable within a restricted range of production, furnish only an insignificant output in relation to the country's actual needs. For this position the lack of the spirit of enterprise among the native Russian capitalists is said to be responsible. On the other hand, liberal provision for the education and training of skilled men for modern industrial conditions is being made.

A SHARE FOR CANADIAN INDUSTRIES.

There is to be found in Russia, therefore, the unusual conditions of great opportunities for industrial enterprise for which the consuming power is at hand, side by side with opportunities for imports on an extensive scale, with the certainty that Russia's industrial growth will rather stimulate than retard the growth of imports; for with the slightest rise in the standard of comfort of such a large population home industries can hardly expect to meet the demand at least not for a great many years. Primarily these factors should make Russia a great market, and if the conditions be rightly studied and understood Canadian manufacturing industries by the nature of their products which are adapted in so many instances to the requirements of a developing country like Russia, may reasonably expect to participate in the trade with that market.

FOREIGN COUNTRIES AND RUSSIAN DEVELOPMENT.

The development of Russia has hitherto appealed to foreign countries in a varying but distinctive manner. Germany by reason of her proximity, and with the assistance of the large German-Russian population directly across the frontier, has been associated with almost every line of general commerce, but notably with general engineering, electrical lighting and power undertakings and insurance. Great Britain has shown mainly a predilection for speculative ventures, chiefly mining. Belgium has been largely identified with industrial enterprises, especially iron and steel works, street railways and municipal undertakings. France has been the banker for Russia and has absorbed the state and municipal loan issues, content with a low but safe return on the investment. With regard to other countries, the United States is known for her specialities of agricultural machinery; and a combine of her leading harvester companies have established their own works near Moscow. In this direction the United States have been a potent force in the development of Russian agriculture. Canada, although associated with the United States on a smaller scale in the same direction, is by no means an unknown quantity in Russia. The indentity of her machinery exports to Russia, however, has been confounded with those from the United States, and notwithstanding their importance they are not treated separately in the official statistics. Possibly also their importation via New York, the Black sea and Hamburg has been responsible for this circumstance.

TRADE METHODS AND GERMAN SUCCESS.

The experience and success of Germany during the last twenty-five years in building up the trade position which she occupied in Russia at the outbreak of the war, when she had 52 per cent of the import trade to her credit, has demonstrated the soundness and capacity of the market. The success of Germany has been principally due to enterprise based upon a thorough understanding of local needs and backed by efficient organization. Financial support from the German banking institutions, which are so largely interested in German industries, have no doubt also greatly facilitated the German commercial invasion, notably in the granting of long credits and in securing important contracts. On the whole, however, it should be admitted that German enterprise and organization have been the chief determining factors in that country's success. There

is nothing secret in those methods; they are not necessarily the possession of any one nation, and they may be elaborated and adopted by any of the allied countries.

In reply to inquiries as to the best way in which Canadian trade may be furthered, the advice has invariably been that Canadian traders should organize on the basis of a close, intelligent, personal study of the requirements of the Russian market and supply those needs on the terms and conditions demanded by the local customs. Most important of all, they should arrange to keep in touch with the consumer through a local house or agent, so that they may always know how their goods are suiting, and how they might be varied or improved under changing conditions. They should remember that the consumer is the best teacher, and that they can also learn from him information concerning their competitors which it is important to know. Whenever possible stock should be kept in London or if necessary in Russia. They should be prepared to give longer credit, and should bear in mind that a wise selection of clients will tend to bring the average length of credit within reasonable limits.

It is not unreasonable to assume that the reckless competition in granting long credit practised in the past is not likely to recur. One might safely give credit and large credit in Russia, but as in most other countries the granting of credit calls for discretion, and when granted under such conditions it is likely to be safe. The highest authorities in the banking and commercial world in Petrograd are unanimous on this point.

THE PERSONAL FACTOR—AGENTS.

As in every other relation of life in Russia so also in business the personal element is an important factor, which cannot be sufficiently emphasized. For the purposes of foreign trade the agent plays an unusually prominent part in Russia. The character, judgment and ability of a firm's representatives therefore are of the greatest consequence. An agent who has been found satisfactory should be highly prized and absolutely trusted—and not parted with lightly. The objection on the part of Canadians to deal through agents and their endeavours to get into direct touch with the consumer, excellent as it may be elsewhere, should be modified in developing business relations with the Russian market. The all-important question of the language, the pitfalls and difficulties associated with the introduction and handling of business, the intricacies of the custom-house clearance and of transportation, tend to make a trustworthy and efficient Russian-speaking agent indispensable. Other things being equal the agent should be of British nationality by preference (Jewish firms are best avoided owing to the legal disabilities under which they live in Russia) or if a Russian be taken then one possessing a knowledge of English and of British commercial habits and customs. Such an agent may be obtained, but not easily, and if with the agent there could be associated a practical responsible Canadian, either permanently or periodically, for the purpose of supervision and of keeping in personal touch with the Russian business the arrangements should be attended with satisfactory results.

COMMERCIAL LAW.

Russian commercial law is being developed. New laws for the recovery of debts, and a general bankruptcy Act have been drafted and fully discussed and now await the final acceptance of the Imperial Duma. The law relating to contracts, and to payment by instalments have been brought already into line with the best modern practice. The commercial courts are often slow in performing their work and it is generally advisable to endeavor to settle by arrangement without having recourse to lawsuits. It is on such occasions that the value of having a good agent is felt, as more often than not, he will be able to save the situation by his knowledge of the circumstances and by tactful but effective pressure.

HOW TO TRADE WITH RUSSIA.

The condition of [illegible] differs from that of every other European country in that the expenses of initiating and conducting business are relatively excessive. The general opinion of independent authorities including leading bankers in Petrograd is that [illegible] plans for the single firm which desires to run independently, as [illegible] would be to court ruin in [illegible] unless always their particular articles [illegible] of universal use and of command such a sale as to make the initial [illegible] of indifference. Another factor against the small single firm is that when Russia once buys, she buys on a large scale. The best authorities on the question [illegible] the plan of associated groups, or syndicates of powerful firms [illegible] products do not compete but are complimentary to each other. Syndicates [illegible] entering the market, have the best prospects of success. Obviously under [illegible] conditions the incidence of the expenses for each participator would be considerably [illegible] every direction, and the work of building up an efficient organization in the chief centres would be greatly facilitated. This is the German plan of approach and has justified itself in numberless instances; it has also been of great assistances generally in advertising German industrial producers in Russia.

ASSEMBLING AND AUXILIARY WORKS.

In the case of the import of bulky articles like machinery, special and general, for which Russia is such a promising market, particularly for machinery with heavy structural sections or parts which could be obtained, finished and fitted locally in Russia, the question of an assembling shop or auxiliary works is one that could, and indeed should receive serious consideration from a syndicate of firms as mentioned. This feature is of [illegible] in distant countries like Canada. In the first place as the Russian duties are high, and are levied on weight, the saving in duty and freight and handling would be considerable, and would assist in meeting local or foreign competition; secondly, the setting up in the country of a quasi-permanent establishment employing Russian labour and Russian material would not only give local satisfaction, but favourably dispose the Russian authorities, in the event of the firm tendering for Government contracts. It should be remembered that under the Russian administrative system the Government is easily the first purchaser in the country and is permanently in the market.

RUSSIAN FOREIGN TRADE.

The statistics of the foreign trade of European Russia show that the total average value for the last five years does not greatly exceed the figure for 1913, the record year of Canadian trade.

The following figures are supplied by the Russian Customs Department:—

TABLE OF RUSSIAN TRADE.

Year.	Exports. $ '000.	Imports. $ '000.	Total. $ '000.	Excess of Exports over Imports. $ '000.	Duty on Imports. $ '000.
1908	486,000	366,000	874,000	94,000	132,000
1909	701,000	370,000	1,106,000	292,000	128,000
1910	709,000	480,000	1,200,000	218,000	145,000
1911	777,000	525,000	1,304,000	252,000	155,000
1912	734,000	531,000	1,247,000	206,000	154,000
Average	$681,500	$468,000	$1,148,000	$214,000	$143,000
1913	731,000	648,000	1,360,000	103,000	195,000

Too much should not be made of this comparison. Nevertheless it is one full of interest and of suggestion for both countries. The Russian Ministers of State with whom interviews were obtained for the purpose of discussing Canadian prospects in regard to Russian trade, were greatly impressed with these evidences of the wealth of Canada—a country which resembles large parts of the Russian Empire. They expressed the opinion that the foreign trade of Canada was at once a high tribute to the energy and enterprise of her people and to her well balanced economic system.

A detailed analysis of Russian imports is reserved until later. Tables of Russian trade statistics are printed in the appendix and may be useful to Canadian firms who desire to study the situation.

DIVISION OF PRESENT TRADE SURVEY.

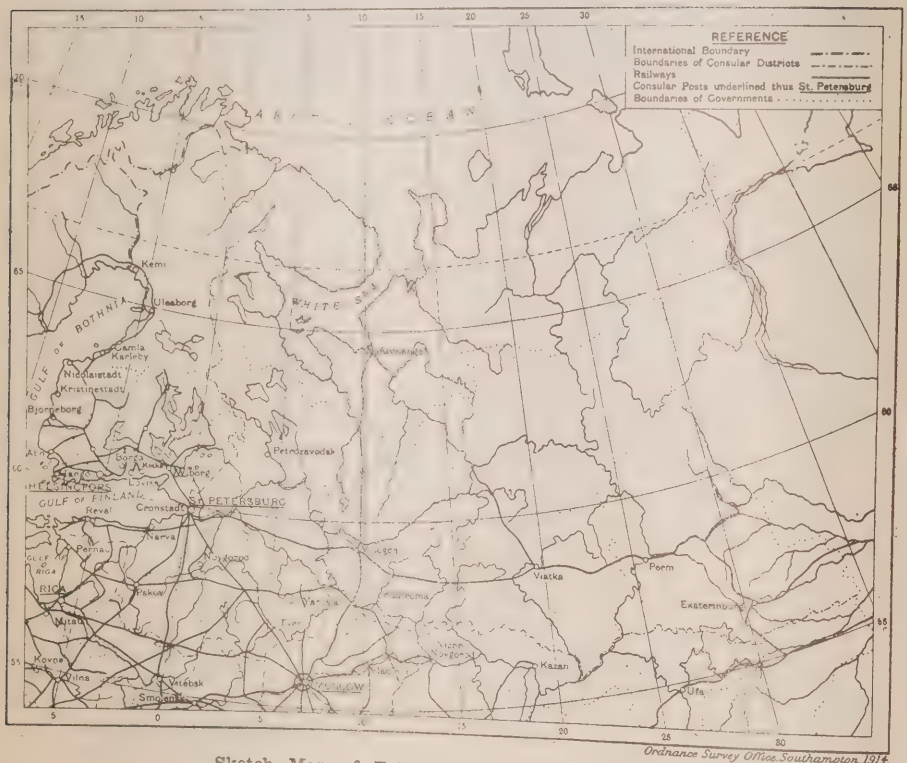
For the purposes of the present survey of the trade outlook in Russia the subject so far as possible will be dealt with by main territorial divisions of the country, corresponding to the several consular districts in charge of the British consuls general, viz.: The Petrograd district, extending to the Urals; the Moscow district, including Central Russia; the Odessa division and South Russia, and the Omsk and Vladivostok divisions, covering Western and Eastern Siberia.

II

PETROGRAD AND THE NORTHERN DISTRICT.

The Petrograd district comprises an area of nearly 900,000 square miles, stretching from Reval, the open winter port on the gulf of Finland, and from Archangel to the Urals. The main line of the railway to Siberia forms roughly its southern base. The population of this district is some twenty-one millions.

Outside of Petrograd, with a population of two millions, large towns are not numerous, the largest fourteen centres having populations ranging from 12,000 to



Sketch Map of Petrograd and Northern District.

70,000 inhabitants. This feature of the urban centres is characteristic of the whole of Russia when the rural agricultural population forms 75 per cent of the total population.

PRIMACY OF PETROGRAD.

It would be difficult to exaggerate the primacy of Petrograd as an administrative, economic and social centre. The extreme centralization of government in Russia has influenced every possible kind of national activity. Scarcely anything of importance is initiated or settled without reference to the Government and the commercial

organizations which are grouped or which centre in the capital. Banks, boards of the great undertakings, industrial and mining, of shipping, and the representatives of foreign interests have invariably their headquarters in Petrograd. Here their plans and policies are originated, discussed and given effect, their purchases controlled and carried out. In short, there is no other place where the pulse of the whole Empire can be more surely felt than in the Russian capital.

Petrograd sets the fashion and dictates the taste of the country in a degree that even Paris does not achieve. It purchases the best goods and pays the best prices. Money commands and obtains everything that is desirable within the four quarters of the globe. Moscow may be more national—it is called the "Moujiks capital"—but Moscow, like the smallest city, looks to Petrograd for inspiration and guidance. Every average Russian visits Petrograd, if he can, to gaze on her palaces, to worship at the magnificent shrines and to taste the pleasures of the city, the "window looking out upon Western Europe" which its prescient founder, Peter the Great, created amid the swamps of the Neva for the advancement and development of the Russian Empire.

START IN PETROGRAD.

It will be readily understood that for foreign firms wishing to establish connections with the Russian market Petrograd has peculiar attractions and the best recommendations. Petrograd and Moscow are the chief importing centres of European Russia, just as Odessa is its chief exporting centre, with the one reservation made in regard to agricultural machinery, the imports of which go chiefly to Odessa and other Black Sea ports.

Moscow, it should be observed, differs from Petrograd in that it is an importer chiefly of cheap staple articles for peasant class consumption, whereas good medium and first-class articles are characteristic of the capital. Libau, Riga and Warsaw were the chief gates for the entry of supplies for Central Russia, with Moscow as the chief distributing point. The effects of the war, however, must inevitably arrest this trade temporary and transfer supply to other countries and along new routes and lines of transportation. Petrograd should undoubtedly increase her hold on the foreign imports into Russia.

It follows from what precedes that Canadian firms should go to Petrograd for their initial business arrangements, whether they establish themselves through—

1. The existing merchant houses in the Russian trade in Great Britain, which have long had their trade connections throughout Russia.
2. Through agents with *del credere* (sole agent, guaranteeing accounts).
3. Simple local agents (Russian and English) working on a commission, selected for their trustworthiness and capacity, or
4. Through branches of the parent houses in Canada working independently, or in the grouped or syndicate form.

All have their advantages according to circumstances. A preliminary visit in all cases is strongly recommended as the conditions in Russia are of such a character that nothing short of actual contact with them will serve to a right comprehension of the possibilities of the market as well as of the difficulties to be encountered.

For Canadian manufacturers and merchants the present time is rather one for studying and maturing plans for entering the Russian market after the war than for immediate dealings; for ascertaining to what extent the goods they make or handle can be adapted to the market or can be substituted for German products. The list of such German articles on page 19 will be helpful in this respect.

TRANSPORTATION ROUTES.

The question of shipping facilities to be provided after the war is an important question which calls for early consideration, and in this connection, unless a Canadian line be inaugurated, suitable arrangements with existing lines such as the East Asiatic

Steamship Company which serves Libau, Riga and Reval and calls at present at Halifax, N.S., and the Russian American Steamship Company, might be considered. Transhipments in London by way of the existing English services of the United Shipping Company, of Wilsons & Hull, [illegible] Lines to Great Britain, which, it is understood, are already under consideration, may offer some further alternatives.

THE RUSSIAN TARIFF.

The position in regard to the Russian customs tariff calls for attention. The abrogation of the "conventional" duties, [illegible] resulted in the general tariff going into force for all allied and neutral countries, Germany and Austria being penalized with a surtax of one hundred per cent. The Russian Government, however, has seen fit to increase the "general" tariff, already one of the highest, by a further ten per cent, with the exception of a small number of articles, of which "sulphate of ammonia, portable engines connected with complex threshing machines and steam ploughs, spare parts for agricultural machines and apparatus imported together with such machines and apparatus," are of interest to Canada. Further increases are not improbable.

What the future may have in store it is impossible to conjecture. It at least seems certain that all the allied countries will be favourably placed after the war in regard to customs duties, as compared with enemy nation competitors in the Russian market.

WAR CONTRACTS.

The successful participation of Canada in the contracts of the Russian Government for munitions of war, railway rolling stock, and it is believed for locomotives and other materials, has created lively interest in Russian official, banking and commercial circles, and should prove an excellent advertisement of the capabilities of the Canadian industrial system.

His Excellency, Mr. Richlov, the Minister of Ways and Communications, expressed his pleasure at being able to place an order for his department with Canada, and he was greatly interested to hear of the variety and efficiency of Canadian works. It is true that the Russian law prohibits the purchase by the State of supplies of this kind from abroad, without a special decree being obtained, and Russian rolling stock works are extremely opposed to any departure from this rule. It seems, however, inevitable that these purchases outside the country must continue at least for the present in view of the exigencies of the war position and of the rapid development of the Russian railway system, which is only a little longer than that of Canada, and which is imperatively demanded to supply the deficiency in the means of communication. It is not an unreasonable demand to make that in the case of the Allies of Russia in the present struggle should be exempted from the present disabilities in regard to public contracts, and that their products should be admitted on an equal footing with Russian products for State and other contracts.

KIND OF ARTICLES REQUIRED.

The requirements of the Petrograd district in imported articles, cover a wide range of manufactures and of natural products. Many of these, probably, lie outside the ability of Canada to supply. For immediate purposes, however, the list given on page 27 covers roughly the classes of Canadian products, in which there should be a reasonable expectation of trade.

AGRICULTURAL MACHINERY AND IMPLEMENTS.

The relative importance of the Petrograd district for agricultural machinery and implements is less than that of Central and Southern Russia. In the Baltic provinces, however, with Riga and Libau as ports of entry, where extensive farming is wide-

spread, the market is comparatively large. Here Germany has long been in control, and as one of the results of the war, good opportunities should exist for Canada in that district. Sickles and scythes are in almost general use in Northern Russia, where the greater part of the crops are harvested with these implements.* The trade was, however, chiefly in Austrian hands prior to war. American and English goods are also imported, the former retailing at 50 cents per sickle, while the English and Austrian varieties are cheaper. Specimen samples have been obtained and may be inspected at the Department.

MOTOR CARS AND LORRIES.

Motor cars have been sold in ever increasing numbers in the past, despite the bad roads outside of the towns, which are not unlike the Canadian prairie trails. The replacing of worn-out and commandeered cars alone should represent a large trade. There is a good future also for the improved cheap car as runabouts for general urban and rural intercommunication, e.g., for the use of managers and foremen, between town offices and outlying factories in industrial districts. A 20-horse-power car costing $1,100 delivered will probably be the most serviceable and popular type. It is recognized that the greater expense of the upkeep is more than offset by the lower initial cost. It is essential to the success of such a car that spares be provided, in order that the owner can keep his car uninterruptedly on the road. An ideal car of the better type, and of 20 to 40-horse-power would be one to retail at $2,250. A well-known German firm did a large business in this model. They were generally sold on two years' credit, with interest added at 8 per cent. The agent's commission for cars has been from 10 to 20 per cent, according to the class and general character of the car. It is said that arrangements are now being made to push a popular American cheap car with the assistance of the American agricultural machinery agents, throughout Russia. Motor lorries in Petrograd and other centres are coming much into favour. A lower set and more compact type of car is however required than the German kind now in use, in order to secure better loading and unloading facilities. Prices should range from $2,800 to $3,500 delivered.

RAILWAY STOCK AND LOCOMOTIVES.

Nominally the importation of all material for the construction and operation of railways is prohibited. Purchases outside of Russia must be authorized by an order of the administration. The present relaxation of the general rule, however, is rendered imperative owing to the shortage of rolling stock, which the Russian car shops are unable to supply. One authority puts the requirements of the private and State railways from 1913 to 1917 inclusive, at a minimum of 145,000 wagons and trucks. This is quite beyond the capacity of the native works. The belief is that the future will witness some modifications in favour of the allied countries contracting for such materials. Petrograd is the only place where business matters of this character can be transacted whether for State or private lines.

BOILERS, OIL MOTORS, GASOLENE ENGINES, LIFTS.

For boilers of special types there is probably a market. The Russian competition in other kinds, however, monopolizes the demand. The openings in oil motors and gasolene engines in the north have hitherto been the subject of keen competition between the Germans, French and Swedish firms, Germany securing the greater part of the business. In lifts (elevators), for business and apartment blocks, the United States and Germany have been to the fore.

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*The imports in 1914 were valued at 1,721,000 roubles.

MACHINERY.

For Canadian specialties in machinery for saw-mills, flour-mills, and wood-cutting, there are unanimously good openings. Nothing but the highest class of machinery can hope for success. The personal presence on the spot of responsible experts of the firm concerned is most essential. Demonstration is also to be thought of, as it is useless to expect to sell machinery of this class from an illustrated catalogue. Price is not the determining factor so much as the possession of the suitable article, and especially of facilities to meet the local customs and, above all, the ability to deliver promptly. The business is concentrated in Petrograd where the purchasing commission houses for the dealers and users in the interior have their headquarters, as well as contractors, great industrial concerns and mining corporations to say nothing of the Government spending departments, which are the largest customers in most lines in Russia. Negotiations can therefore be most conveniently carried out and the settlements effected in Petrograd. In saw-mill and wood-working machines, Sweden has been the provider next in importance to Germany. In flour-mill equipment, Germany, Great Britain and Sweden. In mining machinery, Great Britain. It is stated that the change now proceeding in the character of the mining in the Urals, i.e., from surface workings to deep mining, is necessitating the employment of totally new classes of machinery. Certain Canadian specialties like rock drills, etc., in this regard should therefore, now have an opportunity. The great Russian corporations, like the Demidoff Heirs, the Shouvaloffs and the foreign-owned mining companies are controlled from Petrograd.

GRAIN ELEVATOR EQUIPMENT AND APPLIANCES.

The policy of the Russian Government to assist actively in promoting both the interest of the grain trade and of the peasantry, by the construction of terminal country elevators, should be of practical interest to Canadians.

A series of 110 elevators, large and small, have been planned for Southeast Russia alone. Contracts have been let and others are pending. The details of the equipment can be seen in a museum which has been opened in Petrograd by the State Bank making the advances, where working models and the various appliances can be studied and inspected.

ELECTRIC POWER AND LIGHTING.

The practical monopoly of Germany in the electric power and lighting industry suggests openings for Canadian and British interests in the future. Canadian enterprise in other countries has attracted Russian attention, and questions were repeatedly asked as to the possibilities of Canada's intervention in a number of electrical power and traction schemes, which are more than overdue not only for Petrograd but also for other important centres in European Russia.

CHEMICALS.

Owing to the gradual development of Russian manufacturing industries, the import in heavy chemicals is more or less limited to the crude and more elementary products. The value of chemicals annually produced in Russia is estimated at 150,000,000 roubles. A large producing industry, particularly in the Central Volga district, provides the materials required for the manufacture of the more essential bulk chemicals, such as sulphuric acid, soda and caustic soda. Three-fifths of the Russian imports of chemicals previous to the war came from Germany. Among the most important are glauber and strassfurt salt, sulphur, cream of tartar, heavy spar sulphur, compounds of sodium, citric acid, salt and quinine. For the suggested list of chemicals from Canada the demand is certainly large in the Petrograd district.

There is a growing demand for calcium carbide and cyanimide. Coal tar products, e.g., pitch, carbolic acid, creosote, and even sulphate of ammonia, are wanted, the last named more in the north district than elsewhere. Shipping facilities will determine the possibility of competition from Nova Scotia. But it may be pointed out that the East Asiatic Steamship Company and the Russian-American Company call at Halifax.

For the basic slag produced by the Cape Breton iron works, a large sale might be found in the Baltic provinces as a fertilizer.

DRUGS AND PHARMACEUTICAL PREPARATIONS.

In practically all drugs and medicinal preparations of the European pharmacopœia Russia depends on outside supplies. Nearly 90 per cent, according to the London Chamber of Commerce, comes from Germany. The articles given on page 28 find a ready sale and have been imported hitherto entirely from Germany.

The making up of prescriptions and the compounding of drugs is in the hands of apothecaries, who must be distinguished from chemists, and whose prices, though fixed by the administration, are high. Chemists are more numerous than apothecaries. Chemists trade in simple drugs, patent medicines, cosmetics, etc. The sale of patent medicines is largely on the increase, partly owing to the greater cost of medicine made from doctors' prescriptions and partly through energetic advertising. One of the most valuable of Canadian patent medicines was only recently introduced into Russia. All such preparations have to be approved by the Pharmaceutical Board of the Department of the Interior before they can be publicly offered for sale.

TANNING MATERIALS.

There are very important openings for tanning materials. The chief supply has, as usual, been handled by Germany. Canadian hemlock, birch bark and chestnut extracts should do well. Oak bark, valonia, galls and other substances in use can also be confidently disposed of. Russian tanneries producing leather footwear require mainly decolourized extracts for a speedy process of tanning, which enables them to turn out a cheap leather.

MISCELLANEOUS MANUFACTURES.

Leather.—A reference to the statistics at the end of this report shows how important the Russian market is for leather of almost every class, with the exception, in normal times, of cow leather for making the rough peasant boots. At present, and probably for a considerable time to come, even this latter kind will find a ready sale at good prices. Under ordinary circumstances, Russian boot and shoe factories are permanently in the market for leather for uppers. The chief demand is for box calf, chrome tannings in different qualities, patent leather, glacé kid, and now also for vegetable tanned sole leather. American "chevreau" is also popular. Canadian leather manufacturers can build up a steady and satisfactory trade if they copy continental and American firms in supplying standardized selections as regards quality and material and in supplying moreover the market with trimmed and attractive looking skins. Calfskins have been imported from Germany to the value of $4,000,000 in one year; in 1913 the price of the German article, including duty, was 28 cents per square foot, a credit of sixty days being allowed to regular customers. Hides for carriages, furniture, valises, cases and portmanteaux are always wanted.

Boots and Shoes.—The imports of boots and shoes are large and as they are mainly derived from Austria (ladies' wear) and from Germany, the opportunity of alternative sources of supply in the future is obvious. American footwear of the better class had already been successfully introduced before the war by the characteristic method of special stores. These imported goods are generally the expensive, fashionable kind and find a sale among customers to whom price is not a serious consideration. The Russian town dweller of the female sex is usually very neatly shod, and a stylish,

well made boot or shoe, despite a high cost, is growing in request. The cheaper goods are produced in Russia, and Petrograd has easily the largest boot and shoe factories in the country. The general inclemency of the climate makes a good article acceptable, and the opinion was expressed that the American shoe had not only come to stay, but would gradually become an important trade, although it was an article for well-to-do persons rather than for the masses. The Russian practice of wearing rubbers for never less than [illegible] months in the year calls for light footwear. Samples of Warsaw and Vienna [illegible] of the best qualities of shoes retailing at 10.50 roubles, and of boots from 12 to 15 roubles per pair have been obtained for the information of Canadian manufacturers. These prices are but slightly over those of peace times. Competing with the American shoe is the German "Standard" make selling at $7.20 per pair. American lasts are somewhat in vogue.

ARTICLES OF CONSUMPTION.

Fresh Apples.—The production of alimentary products in Russia is so vast and varied that there is little which Canada can usefully offer. For the local trade of Petrograd, apples of the finest quality form an interesting exception. Hitherto these, as indeed all other foreign fruit, reached Russia via Hamburg, and were bought at the fruit auctions by the buyers of the Russian fruit importers stationed there. It is stated that Germany secured annually a commission on a total of nearly forty millions of roubles worth of fruit destined for Russia which were imported through the free port of Hamburg. Boxed apples are the only kind which are wanted by the Petrograd trade, and of these some 150,000 cases are taken from the United States, Canada and Australia annually. The dealers are anxious to get into direct touch with Canadian growers. Canned "gallon" and evaporated apples were considered articles which should also find a market. Of canned fish, there is already probably enough and to spare, but one of the largest provision dealers in Petrograd has been interested in Canadian pink salmon. It is believed that this article might be made a popular alternative to the canned variety of sardine, which is consumed in great quantities in Petrograd, and there are further possibilities in connection with military contracts.

A CANADIAN FORWARDING AGENCY FOR RUSSIAN TRADE.

British trade with Russia has undoubtedly suffered both materially and in prestige from the fact that the whole of the foreign forwarding business of Russia has been allowed to drift into foreign hands, mainly German, who have practically controlled the position. It has been attended with disagreeable surprises since the war began. Any development of Canadian trade with Russia should be free from such influences, and should be in Canadian hands. It is believed that in the Canadian forwarding agencies lies the instrument for this purpose. A fusion of these interests for Canadian purposes in Russia is a *sine qua non*, if successful results are to be reached. And if with the usual forwarding business, there could be combined banking facilities for small transactions with the joint support of the Canadian chartered banks, the means for financing a respectable volume of trade in the aggregate with Russia, on the lines of the extended credit which that market calls for could be automatically provided. In this way one of the greatest difficulties in the path of promoting trade with Russia might be solved. An inexpensive organization at the six chief centres of distribution in Russia could be built up on these lines without delay, with the co-operation of the existing trustworthy British forwarding houses possessing long local experience.

TRADE OPENINGS IN THE RUSSIAN EMPIRE.

The following is a list of goods manufactured by German firms and now in demand in Russia which has been compiled from reports supplied recently by His Majesty's consular officers:—

Agricultural machinery and implements.
Aluminium cooking utensils.
Asbestos.
Ball bearing.
Bicycles and bicycle accessories.
Blades for cold saws.
Blowers—
  Sandblast apparatus.
Boat, motors.
Boats, motor.
Boiler fittings—
  Steam slide valves.
  Blow-off cocks.
  Steam pipe isolating valves.
  Water level indicators.
Boot polishes.
Boots.
Brushes for dynamos—
  Carbon brushes and contacts.
Brushes, hair, tooth, clothes
Calculating machines.
Cash registers.
Cellulose factories, installations for—
  Woodgrinding plants.
  Machinery for pulp manufactures.
Chains—
  Galle chains.
  Link chains.
Chamot fabrics.
Chemicals.
Chucks for lathes.
Circular saws.
Combustion engines, internal.
Cotton goods.
Crude oil engines.
Cutlery and steelware.
Cutters, milling.
Docks, floating.
Drawing ink.
  " instruments.
  " paper.
Dredgers.
Dressing plants.
Drills and drilling tools.
Drugs.
Dry dredgers.
Duplex pumps.
Dynamo governors.
Dynamos.
Economisers.
Edge mills.
Electrical apparatus.
Electric lighting accesories.
Electrical machinery.
Electric measuring instruments.
  " railway installation.
  " tools and articles.
  " welding and cutting installations.
Electricity meters.
Electro-motors.
Emery.
  " wheels.
Enamelled ware.
Engines, fire.
Exhausters.
Extinguishing apparatus, fire.
Feed pumps.
  " water meters.
Fertilizers.
Files.
Fire-brick goods.
Fire engines.
Fittings—
  Lead apparatus and fittings.
  Boiler fittings.
  Fittings for gas pipe heating plants.
  Blast furnace accessories.
  Cast steel fittings.
  Water fittings.
Friction couplings.
Furnaces—
  Heating and hardening.
  Tempering.
Furniture.
Gas meters.
  " purifying plants.
  " suction fans.
Gauge glasses, water-gauge glasses.
Glass and chinaware.
Gloves.
Governors—
  Shaft governors.
  Temperature regulators.
  Revolution governors.
Graphite.
Guns, rifles, revolvers, etc.
Haberdashery.
Hammers, pneumatic.
Hardware and tools.
Hats.
Hoists.
Horse-power indicators.
Hydro-extractors.
Ink and drawing ink.
  " ribbons for typewriters.
Jewellery.
Knitting machines.
Lamps, arc.
Lathes.
Launches, motor.
Laundry machinery.
Lead, rolled.
Leather and leather goods.
  " belts.
Lifts—
  Press-button apparatus.
  Hoisting machinery.
  Blast-furnace lifts.
  Paternoster works.
Linen collars and shirts.
Liquid meters.
Lock, locomobile.
Lubricating oils and greases.
Machine tools for metals.
  " " toothed wheels.
  " " wood.
Makers' name plates.
Manometers.
Material testing machines.
Mining machinery.
Motor cars.
Motors petrol.
Musical instruments.
Narrow-gauge railways of all kinds.
Oil cooking stoves.
Oil factories, machines for.
Optical instruments.
Packings, stuffing box.
Paint brushes.
Paints.
Pelton water wheels.
Pens.
Photography, requisites for.

TRADE OPENINGS IN THE RUSSIAN EMPIRE.—*Concluded.*

Pipe lines—
  Sheet metal tubes.
  Fittings for pipe lines.
  Coiled pipes.
Ploughs, single-horse hillside reversible.
Ploughs, steam.
Presses.
Pressure gauges.
" reducing valves.
Printing machines.
Pulley blocks.
Pumps.
Punching machines.
Pyrometers.
Rawhide gears.
Ready-made clothing.
Reamers.
Refuse destructor furnaces.
Riveting machines.
Ropes.
Rubber goods for household and hospital purposes.
Rules.
Saw-mill machinery.
Saws.
Scientific instruments.
Separating machines.
Separators, magnetic and electro-magnetic.
Serges.
Sewing machines.
Sheaves, rope.
Sheet lead.
" metal working machines.
" tin.
Shoes.
Slaughtering yard installations.
Soap, medical and toilet.
Speed indicators.
Sporting requisites.
Stationery.
Steam traps.
Steel wire.
Stop valves.
Street rollers.
Surgical instruments.
Tannery machines.
Textiles.
Textile machines.
Thread-cutting machines.
Toys.
Turbine pumps.
Turbines, steam.
" water.
Typewriters.
Umbrellas.
Watches and clocks.
Woollen and cotton underclothing.

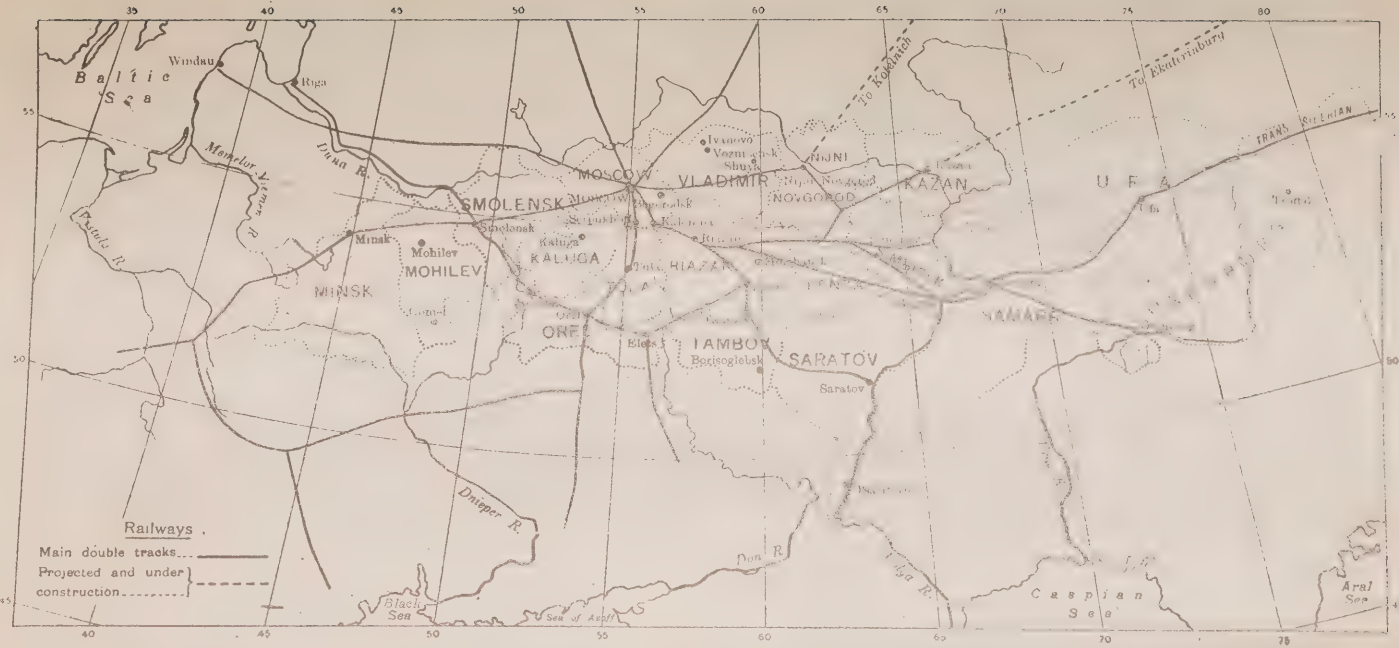
III

MOSCOW AND CENTRAL RUSSIA.

Central Russia, with Moscow, the ancient capital of the Czar, as its focal point, is the richest and the most thickly populated part (93·73 to the square mile) of the Empire. This region contains eighteen governments covering an area of 480,000 square miles, less than one-half of the Petrograd district, but with more than twice the population, viz., 45,000,000. It is roughly two-fifths of the total area of European Russia and stretches from Minsk in the west to the frontiers of Sibera and of Central Asia, a distance of 1,500 miles. A clearer idea may be obtained if Central Russia be compared to an area equal to Germany, France, Switzerland, Belgium, Holland and Denmark, and a population equal to that of the United Kingdom. As may be expected, the cities and towns in this region are both larger and more numerous than elsewhere in Russia. Moscow had, in 1912, a population of 1,617,000, and there were also at least ten cities with populations ranging from 40,000 to 80,000; ten of from 100,000 to 170,000, and one each of 190,000, and of 225,000 inhabitants. Railway communications are, for Russia, relatively well developed here and to the south, but compared with Canada, the mileage is relatively small. In 1914, Russia had 32½ miles of railway per 100,000 inhabitants, or one mile for every 3,125 of the population, against Canada's one mile for every 200 of her inhabitants. Russia, however, is beginning to realize the economic significance of railway expansion, and from other points of view the lessons of the present war may be expected to accelerate railway building.

MOSCOW A BUSINESS CENTRE.

As a place of business Moscow occupies a unique position. The interests located there control and serve the enormous area of which the city forms literally the geographical centre in all matters of supply and demand for a mainly agricultural country, and it is through the Moscow merchants and agency houses, that foreign imports are brought directly before the consumers. With characteristic enterprise the Moscow merchants have also organized and largely control the Siberian trade. Many of the most successful of her citizens are Siberian born, who find it desirable to reside in Moscow to direct the financing and the purchasing end of their business operations. Finally, industrial Russia may be said to centre in this city, where the Moscow Manufacturers' Association which forms almost a party in the State, exercises a potent influence on the tariff policy of the country. Moscow capitalists are responsible for the Russian textile industries, which are to be found mainly here, the iron and steel industry, and many other manufacturers. It was Moscow's intiative also that started cotton-growing in the Caucasus and Central Asia, which now supplies a considerable portion of the raw material of the country's cotton trade. The air of business which pervades this strange but fascinating city is very attractive to a westerner. Business men are more accessible than elsewhere. They seem to have a grip of affairs and pursue methods of dealing which lead to quick decison and execution. These qualities coupled with a strong local patriotism form the driving power of Moscow's citizens, which cannot fail to secure for the city an ever-increasing influence in the political and economic development of Russia.



F O, No. 5415

Ordnance Survey Office, Southampton, 1914.

Sketch of Map of Central Russia (Moscow and District).

The dissimilarity of the Petrograd and Moscow markets has already been pointed out. Broadly, Petrograd disposes of a higher class of article at corresponding prices. Moscow's clients belong to the peasant class, to the inhabitants of the rural towns, whose wants are restricted, and who are in the stage when new wants and habits are forming. This does not necessarily lessen the range and variety of the articles desired, but rather the contrary. The attractiveness of the articles, however, rather than the quality appeals, and cheapness is an all-determining factor. This attitude has been clearly grasped and exploited by the German trader, and in this connection, nowhere is the evidence of the German adaptability, and of the German "trade penetration" of Russia more apparent. Moscow's stores were, and are still, full of German goods. Large numbers of these stores are obviously German, while the representatives of German houses in the district must be numbered by thousands. Many of the more important of them are, for the moment eager to take up British and other agencies, but probably only to sidetrack them at the first opoprtunity, when the return of the German becomes possible. In Moscow's best departmental store, the largest in Russia, founded by Scotsmen in the forties of last century, and still conducted under British management, probably 60 per cent of the foreign goods on sale were of German manufacture. The range of retail prices paid and the quality which satisfies even the good class in Moscow precluded the nearest corresponding English goods from competing. This establishment was visited, and a number of samples were secured, which it is hoped may be of value to Canadian manufacturers. The firm is open to buy Canadian boots and shoes, brush goods, wringers and washing machines, lawn mowers, handles, tools, moulded glassware, enamelled ironware, kitchen utensils of wood, kitchen ranges, gas cooking stoves for flats, hand bags, grip frames and fittings, nickeled bath fittings, office requisites and filing cabinets, cornice poles and plates, curtain rods, electrical fittings and lamps, novelties, soda fountains and freezing machines, certain canned vegetables, canned " gallon " apples and evaporated apples. Prices should be quoted c.i.f. London or Liverpool.

On the general question of the opening for Canada in the Moscow district, the substance of the two typical interviews which follow will be suggestive. The first of these was with the manager of one of the oldest British trading houses in Russia, the second with a highly respected Canadian gentleman who, for years has been in charge of important Canadian machinery interests in Russia.

The former stated that, generally speaking, Russian trade might be summed up in a word "giving facilities." It was not necessarily a cut trade, but the Russian was often inclined to eliminate the calculation of costs and charges and to say "I will pay you so much for an article if you deliver it to my door."

The question of finance was, of course, difficult, but what was being stated as to the lengths of credits necessary was much exaggerated, or at all events, exceptional, unless perhaps for certain classes of agricultural machinery. As long as the right agent was provided he would select the right customer for business on satisfactory terms—allowing, however, always for the market. Taking the suggested list of Canadian articles (see page 27), his observations were, briefly, as follows:—

Provisions.—The Moscow district was self-supporting and anything Canadian that might be imported would never be for the masses, but for the few thousands of the better class—it would be a luxury.

Chemicals.—Anything of this kind would be marketable if the prices of the Canadian articles could meet competition. Chemicals were wanted and the competition of Germany could not be in future what it had been in the past.

Metals.—The same remarks were applicable. Metals a cash trade.

Leather.—All kinds would probably find a ready market. Leather belting and balata belting were also probable articles of import.

Boots and shoes.—For the townspeople. The quality in demand is lighter in make than the English, and even lighter possibly than the American. Rubbers are worn here or eight to nine months in the year. Stock should be carried here or England.

Hardware.—There is a market for all kinds of hardware, but stock must be carried.

Pulleys, split.—Moscow a good market for this commodity.

Organs and Pianos.—No opening at present is in evidence.

Asbestos Goods.—A market is present.

News and Printing Paper.—There was probably a better market in South Russia, say in Odessa, in competition with Finland, which could not possibly supply the total requirements; the quality of the paper used here required improving, and a good line once introduced and approved would be difficult to oust. People read more; education was spreading. The natural increase of the population moreover was a market in itself. The consumption of paper in Russia increased 30 per cent annually. The same remarks applied to wrapping and packing paper. Writing paper also of an improved character was much needed.

Typewriters.—A good machine but cheaper than the standard makes was likely to do well. Probably one retailing at about $65 should have good prospects.

Radiators.—Although radiators are now coming from Sweden and Denmark there is a market for Canadian radiators.

Tools and axes.—The Russian single-handed axe—not the Canadian variety—is used for all purposes. Sickles and scythes have hitherto come from Austria.

Enamelled ware.—Must be light. This should be a large article for popular use, suitable for the cooking stoves used, and wood firing.

Agricultural machinery.—This is capable of indefinite extension, the light type of machinery supplied by the United States and Canada is what is required. Motor ploughs are new, but promising, particularly in the South-east and in Siberia.

The firm in question handles as exports sugar and molasses, fusel oil, refuse from vodka distilleries for commercial uses, spirits, potatoes, flour, dextrine, hemp and flax, bristles, carpet and wools.

The Canadian gentleman referred to above considered the list of articles a useful one for Russian needs, provided Canada could produce them for export. Hitherto Canadians had not aspired to do this but had been content with the local market, except in a very few lines, like agricultural machinery, etc. There was no question but that the Russian market was a large one potentially. Care must be taken to study the processes available respecting the recovery of debts and to provide against the giving of unconsidered credit. Canadians must go to work, however, in a special way just as the Germans have done, for if they did so they would probably achieve similar results. The principle of firms combining in groups or syndicates in order to work the Russian market was a good one, but those who wanted to make a success must cover over and investigate for themselves. Doing business direct from Canada was of little avail. In any case catalogues in Russian, and in the weights and measures and currency of the country were indispensable. The English threshers, as against American and Canadian, were so far the best for Russian conditions. Portable engines were wanted, and a prominent Canadian firm was attempting something in this line and in threshers the results of which effort had yet to be seen and gauged. Scythes and sickles, mainly Austrian, were important articles for Northern Russia, where the

greater part of the crops was reaped with them. Canadian boots and shoes should sell well for town wear. Prices are about double the Canadian retail prices—a $4 article selling for 15 roubles and a $5 for 20 roubles. News and printing paper should be able to compete in South Russia with the Finnish product. If Canada could turn out the Russian kind of door furniture, handles and locks, and other similar articles this might be a substantial business. Canadian butts and hinges should also sell. For metal laths and for steel ceiling plates there should be a future, but this trade would require to be pushed with intelligence and persistence. These materials had been employed with effect and had given full satisfaction. The enamelled ware in use was all German and Austrian, of good quality. The Canadian article must be equally good in order to obtain a sale. The old competition would not have to be faced in future.

It is the opinion of this gentleman as well as that of many others, that the Russian will resume business with German firms, if the same conditions are offered as previous to the war. The mass of the people do not appreciate the difference between a German and other foreigners. The Russian country merchant is influenced by price and buys from the man who on the whole is cheaper. The tariff is not likely to be modified, the reduction of duty is not of so much consequence to Canada as an advantage over German competition. It is to be feared that the purchasing power of the nation will be reduced after the war. Trade credits have, he thinks, been exaggerated. With the best and most reliable people, who must be sought out, a reasonable length of credit can generally be arranged. At present, cash payments are very general, and this will not be without its effect when general business is resumed.

RUSSIAN MARKET FOR AGRICULTURAL MACHINERY.

The use of agricultural machinery and implements in the Moscow district continues to grow very fast. This feature is common to European and Asiatic Russia. It has been promoted and stimulated by every sort of government encouragement, educational and financial, while the provincial councils, (Zemstvos) and co-operative associations have also done their share. A progressive increase may therefore be looked for. The manufacture of simple agricultural machines and implements is, as it should be, the greatest single manufacturing industry of Russia, but notwithstanding the constant multiplication of the works the industry is quite unable to keep pace with the constantly growing demand.

IMPORTS OF AGRICULTURAL MACHINERY.

The imports of agricultural machinery have steadily risen for years, and for the last three years were of the average value of 50,000,000 roubles annually. They were less than 20,000,000 roubles in 1905. The imports are a little less than the total value of the home production of agricultural implements and machines. That the character of these imports is changing can be traced in the steadily rising value per unit of weight of the machinery imported, showing conclusively that the market in Russia is becoming increasingly one for the highest types of foreign agricultural machinery, and this feature may be taken as a guarantee of the future of the trade.

Moscow is a leading centre for the agricultural machinery trade, and the principal American and Canadian manufacturers have their headquarters here.

FLOUR MILL MACHINERY.

Of late a large demand has arisen for flour milling machinery, (roller process) in small units, for the numerous mills, that are springing up, especially in Siberia; and as Russian works are only able to turn out the stone mills, the trade is worth cultivating. Hitherto Germany and Switzerland did the bulk of this business, Great Britain, however, sharing to some extent.

THE AMERICAN COMPETITION.

The American combine for harvesting machinery, known as the International Harvester Company have opened large works in the neighbourhood of the city which, for the arrangement of shops, equipment, and methods of manufacture are quite remarkable. When in full working order, probably in three or four years' time, the output, it is estimated, will take care of one-sixth of the Russian annual requirements in harvesting machines. Being a very prosperous capitalistic company it is able to adopt methods of business which, it is thought, may prove a serious competition both to the older native works and also to foreign competitors from the United Kingdom and Canada. The company became entitled to the government bonus of one rouble per pood (36 pounds) on completed agricultural machinery made in Russia. The bonus came into force in 1913, and it is estimated that the bonus earned by the company in that year was about one million roubles ($500,000). This sum at, say, 30 roubles per machine represents an output of 35,000 harvesters alone.

The position of the works from the point of view of the cost of auxiliary material, coal, iron, etc., is not as good as might be desired, but there are compensations in the supply of labour and shipping facilities. The company imports from the various works concerned in the United States the parts of these machines, and the Moscow plant in this way is to a considerable extent an assembling works.

CANADIAN AUXILIARY WORKS.

In view of the possibilities for Canadian agricultural and other machinery in the Russian market, and for the purpose also of safeguarding the existing trade, it seems that the establishment of some sort of auxiliary or assembling works in Russia is a subject worthy of the attention of Canadian machinery interests and their financial associates. It has been ascertained that the Russian Government is seriously considering ways and means for encouraging the setting up of additional works of the type of the International Harvester Company referred to, and that any serious proposals of this kind from Canada will receive generous consideration by the Government.

FURS.

Moscow has always been the chief fur centre for Russia, and the tendency towards a transfer to Moscow of the business of subsidiary fur markets, like the Irbit and the Nijni Novgorod fairs is steadily growing. Canadian fur dealers will probably be interested to learn of the movement, which has been initiated by the fur section of the Moscow Chamber of Commerce and Industry, to render the Russian fur industry in future independent of the Leipzig market. Leipzig has hitherto taken the main supply of Russian raw furs; has treated and finished them and resold the finished product again to Moscow. In future, Moscow purposes to do more of the finishing process herself and is endeavouring also to get into touch with London, New York, and other important fur producing and fur importing centres, for the purpose of direct business dealings without the intervention of Leipzig. The president of this section desires it to be known that the committee will be glad to hear from Canadian fur interests and will gladly furnish information that may prove of material interest and tend to forward the objects which the chamber has in view. Moscow can supply finished furs such as required, squirrel tails, ermine, marten, stone and baum marten, hares, Persian lamb, etc. Russia is a very large buyer of fur goods.

THE ASSISTANCE OF INTERMEDIARY FIRMS.

The Russian banks are greatly interested in the determination of Canada to enter the Russian market. The directors were unanimously of the opinion that the grouping of suitable Canadian firms with their own representatives in Russia was to be recommended. They were equally agreed that such undertakings would find in the good

intermediary houses the most effective instrument for pushing business throughout Central Russia. On the whole this method was to be preferred to intermittent efforts to get into touch with the large firms, which might buy once in a while, but which would be more likely to buy regularly, if the selling firms interested were in the hands of regular agency houses. These intermediary firms are quite characteristic of Moscow trade; they facilitate business and are able to adjust differences and overcome difficulties with customers to a degree, of which their principals have little conception. The banks promise every assistance in suggesting suitable houses and in giving helpful advice whenever needed. The names of a certain number of firms of this character have been collected at the various centres visited.

CHAMBERS OF COMMERCE.

That Russian business circles are feeling their way towards a closer relation with allied countries is shown by the formation of various organizations such as the Russo-British, the Russo-Italian and the Russo-French Chambers of Commerce. These have been followed by the formation in June of a Russo-American Chamber in Moscow under influential auspices; on this occasion, it is understood, steps were also taken that will ensure the creation of a strong Russo-American banking institution. Russian economists and commercial men instinctively feel that in the United States may be found that support of which Russia stands so much in need, and which must be forthcoming, if the development of the country is to not be be seriously arrested. The position of Germany, whatever the result of the war, will probably never be the same again in Russia, owing to (1) her economic exhaustion, (2) her inability to rely upon the foreign money markets to finance her foreign trade on the old system; and (3) to the burdens of heavy taxation which will impair her power of competition. With so much of the wealth of the civilized world flowing into the United States as a consequence of the war, that country will be in a position to give this support. Moreover, her citizens have the will, the practical experience and enterprise as well as the means for seizing the opportunity, and thus to redress the balance upon lines which are likely to be mutually beneficial. In this event, Canada may expect to benefit indirectly owing to her transatlantic position and to her internal conditions, which offer to Russians the best opportunities still available for emigration and settlement within the British Empire, to-day Russia's best friend and ally.

LIST OF CANADIAN ARTICLES FOR THE RUSSIAN MARKET.

Machinery Manufactures

Agricultural machinery.
" implements.
Threshers.
Tractors, steam and gasolene.
Cream separators.
Binder twine.
Automobiles.
Motor lorries.
" accessories.
Rolling stock.
Pressed steel frame (cars).
Locomotives.
Steel rails and fastenings.
Bolts and nuts.
Boilers.
Oil motors.
Marine gasolene engines.
Hoists.
Machinery—Saw mills.
" Flour mills.
" Mining (rock drills).
" Oil well drilling.
" Woodworking.
" Electrical power and ligthing.
" Switches.
" Switchboards.
" Transformers.
Stumping machines.
Wringing "
Washing "
Grain elevator equipment.
Steel pipes for oil-well pipe lines.

Chemicals.

Carbide of calcium.
Acetate of lime
Acetone.
Sulphate of ammonia.
" soda.
Patent medicines.
Coal tar products—
Pitch.
Carbolic acid.
Creocote.
Drugs.
Tanning extracts.

LIST OF CANADIAN ATTICLES FOR THE RUSSIAN MARKET—*Continued.*

Articles of Consumption.

Fresh apples in cases.
Canned apples.
Evaporated apples in rings.
" " " sun-dried, whole or in quarters.
Canned vegetables.
" fish, pink salmon.
Codfish.
Stock fish.
Flour (Finland).
Cheese.
Lard.
Abbatoir products—
Oil, tallow, stearine.
Casings.

Miscellaneous Manufactures.

Leather for uppers, Chrome—Patent.
Carriage leather.
Harness "
Leather belting.
Boots and shoes.
Belting—Balata.
" Duck.
Brooms and brush goods.
Ceilings, metal and steel.
Expanded metal (building).
Metal laths.
Enamelled ware.
Hardware—Builders', furniture, carriage, locks.
Safes and steel doors.
Fttings, steam, water, gas.
Pulleys, wood split.
Electrical fittings and lamps.
Office requisites.
Fling cabinets.
Organs (pipe).
Pianos.
Paints.
Asbestos goods.
News and printing paper.
Rubber footwear.
" overshoes.
Corsets.
Radiators.
Typewriters.
Sewing machines.
Furs.
Glue, fish glue, liquid glue.
Handles for tools.
Tools, axes, etc.
Skates.

Metals, etc.

Aluminium and aluminium castings.
Billets, blooms, rods, bars.
Wire nails.
Nickel.
Graphite.
Babbit metal.
Wire of all kinds.
Barbed wire.
Cobalt.
Corundum.

LIST OF DRUGS AND CHEMICALS IMPORTED BY RUSSIA FROM GERMANY.

Acetanilid.
Acids, Aceto-Salicylic.
Carbolic, Citric, Oxalic.
Pyrogallic, Salicylic powder.
Salicylic Crystals Tart.
Crystals and Pulv.
Argent viv. (Spanish).
Argent Nitras Crystals.
Fused.
Aspirin.
Auri Chlor.
Bals. Copaibæ filtered.
Opt. B. P. and Peruv.
Bismuth Carb. Salicylas and Subnit.
Caffein, Pur, and Citras B. P.
Cassia-Fistula.
Cassa Lignea Quill.
Carmine Pur.
Caroyph.
Chloral hydrate.
Cocaine.
Codeia Crystals.
Hydroch., Phosp. and Sulph.
Cremor Tart, pulv.
Essence Bergamot, etc.
Guarana.
Hydrarg. Creta Ammon.
Oxid. Rub., Perchlor.
Subchlor.
Alcohol, absolute.
Aloes, cap, opt.
Agar-agar.
Ammon. Bromid. Carb. Iolid.
Antimon.
Antipirin.
Hydroquinone.
Ichthyol Ammon.
Iodine dry and re-sublimed.
Litharge Lichen.
Magnes. Carb. Levis.
Menthol.
Morphia, Acet., Mur.
Sulphate crystals.
Musk, China and artificial.
Opium, Tky., Pulv. B. P.
Persian Opt.
Oss Sepiæ.
Phenatecine
Piperazine.
Plumb Acet. and Carb.
Potass Cclor. crystals.
Pulv. Iodide, Permang.
Crystals Pav.
Protargol.
Spermaceti.
Strychnine Crystals.
Sulphonal.
Vaseline.
Synthetic Oils, etc.

This list of drugs and chemicals was taken from a recent number of the London *Chamber of Commerce Journal.*

IV.

ODESSA AND SOUTH RUSSIA.

The Odessa consular district comprises thirteen governments, covering an area of 325,000 square miles, and a population estimated at forty-one millions.

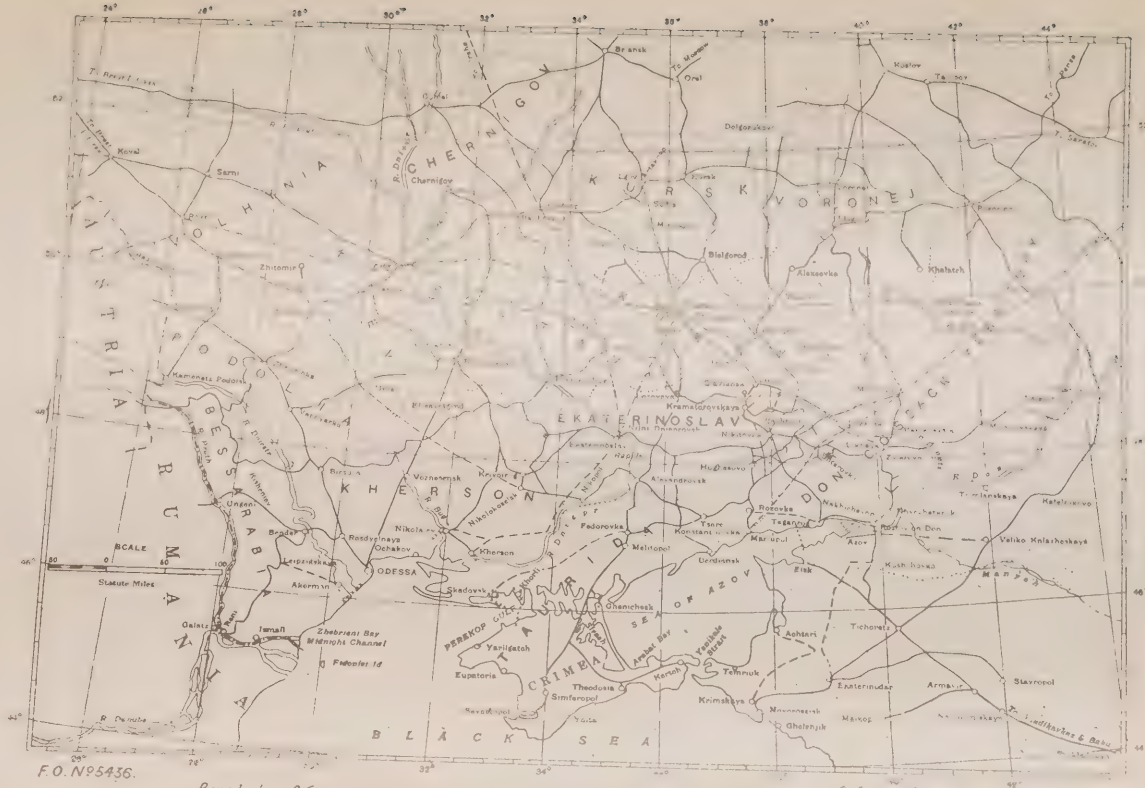
The district divides naturally into a continental and a maritime division, but the general physical aspect of the country is that of endless rolling plains, inclosing in the western parts towards the Austrian frontier and in the lower valley of the Dneiper the most important hardwood forests of Russia. Great interest attaches to the prodigal variety and richness of the local natural resources. This is the famous "black earth" region of Russia, which grows such wonderful crops. Agriculture gains indirectly by the prominence given to the sugar beet, and almost the entire sugar consumption of Russia is produced here. There is also tobacco growing, which industry is widespread, fruit of great variety, oil and the vine. The Donetz basin contains the greatest coal measures of Russia, which are being actively developed, and around which has grown up the iron and steel industry on a great scale, mainly with the help of foreign capital, with well developed engineering, metallurgical, chemical undertakings and a multitude of co-related industries. In the east and south-east are important salt mines, the great petroleum fields and manganese deposits, the greatest in the world, and the highly mineralized ranges of the Caucasus. The largest cities are Odessa, with a population of 610,000, and Kieff, with 590,000. As to other important centres, there are three cities each with populations of about 250,000, three of 120,000 to 150,000, six of 70,000 to 90,000, and at least twelve of 50,000 to 60,000 souls. Lastly, there is the Black sea, lined with busy and growing ports, with valuable fisheries, the one great outlet of Russia in "warm" water, over which the bulk of her exports find their way abroad.

FOUR CENTRES FOR TRADE.

For Canadian purposes, Southern Russia is a more complicated proposition than the other great divisions already dealt with. No one city in the region can be said to serve as a common centre, as do Petrograd and Moscow. There are rather four such centres for the four districts into which the region most usefully divides—two maritime, two inland—Odessa and Rostov on the Don, Kieff and Kharkov. These points were visited. The primacy among them falls to Odessa, the chief all round port and strong financial centre, with important diversified industries, serving a fertile hinterland filled with the most progressive agricultural population which Russia has to show.

THE UBIQUITOUS GERMAN.

For the products, which Canada has to offer, Odessa is an excellent centre in itself, with this drawback that here more than elsewhere is the pressure of German influence to be felt. Odessa has been largely a German commercial outpost, and it has been greatly helped to this position in the past by a mistaken railway policy, now happily being corrected, which bound the town and its fortunes more closely to Austria and Germany than to Russia. One-third of its population are Jews, and there are, or were, 30,000 foreigners, mainly Germans. It is not difficult to imagine, in these circumstances, that the imports of manufactured goods have been mainly from Germany; many of them are of the cheap and showy class which suit such a market. The lack of well developed, regular lines of steamships with the Black Sea has acted as an additional handicap to Great Britain and the remoter countries.



Sketch of Map of South Russia.

CHARACTERISTICS OF BLACK SEA TRADE.

The explanation in part is that the trade of the Black sea moves in one direction only, namely: outwards, and that the character of that trade, namely: staple products, such as grain, ores, etc., suit only the tramp class of shipping. The shipping statistics of Odessa for 1913 give inward cargoes of 350,000 tons and outward cargoes of 1,200,000 tons, and this is a favourable proposition compared with the other rival ports along the Black sea and Azov littorals. An analysis of these imports is interesting and will illustrate the point that is being made. Of the 350,000 tons of cargo actually received at Odessa, 200,000 represented coal; 40,000 tons fruit, oranges, lemons, etc.; 40,000 tons various raw materials for the soap, candle, chemical and other primary local industries; 6,500 tons tanning materials; 820 tons mineral pigments and colours; 820 tons white lead and zinc; 174 tons tinned iron and enamelled ware; 300 tons scythes, sickles, etc.; 550 tons hand tools; 2,370 tons agricultural machinery; 1,450 tons locomobiles and other machinery; 350 tons spare machinery parts; 150 tons paper; 4,734 tons iron, sheets, hoops and other fashioned iron.

The exports were briefly 1,000,000 tons of cereals of all kinds; 65,000 tons of raw beet sugar; 100,000 tons of timber including staves, and about 5,000,000 gallons of proof spirit.

IMPORTS OF FARM MACHINERY.

The Black Sea basin takes more foreign agricultural machinery than the rest of Russia. The great bulk comes from the United States in whole cargoes by ships on time charters—hitherto arranged by a Hamburg firm. The ships arrive between the months of January and March and discharge mainly in Azov ports, the goods being distributed from there.

INTERMEDIARY FIRMS.

Odessa is a veritable hive of agency and commission firms, which are well organized for their business. It is commonly reported, however, that an undue proportion of firms are of doubtful financial strength, and that the war is only too likely to affect the standing of many more. Caution will therefore be required in entering upon engagements for this, as well as for the general reasons already mentioned.

AGRICULTURAL IMPLEMENTS AND MACHINERY.

A large and constantly growing trade hitherto has been done from this centre in harvesting machinery, horse rakes and tedders, in which Canadian makes have had their fair share. The peasant class is solvent and unusually intelligent and enterprising, and the prospects are therefore encouraging. In ploughs and other simple machines, the Russian works handle the bulk of the trade. The British Consul General states that Germany had formerly done a good business in ploughs, both single and multiple, probably among the German-speaking colonies, which were founded under Nicholas I, and even earlier—and further that American and German manufacturers held the trade in seed drills and corn planters; local factories, however, were now making large quantities. Harrows of the disc pattern have met with approbation, and are being supplied by the United States and by Canadian and German firms. The better class of chaff and forage cutters come from the United Kingdom and Germany, but local factories are now turning out large numbers of an inferior quality. A good business is also to be done in pumps. Steam pumps come mainly from Germany, hand pumps from the United States and Germany.

An American informant has supplied the following particulars on miscellaneous articles.

MISCELLANEOUS ARTICLES.

"Post hole diggers are furnished by America and Germany, and prices vary from $30 to $85 per dozen. Forks are imported from the United States, France and England; they range in price, according to size, from $1.90 each to $11.25 a dozen. There is a great demand for forks in beet culture and in digging potatoes. Hoes come principally from England and sell for 25 cents to $1 apiece. Sprayers are furnished by America, Germany and England; the latter appear to control the trade. Forges, which are in great demand, are made principally in Russia. America, however, has been able to enter this market. They are disposed of retail for $14.25 to $30.75. Rakes are a profitable article of export for America, though the Germans and Swedes are doing a brisker business in this commodity. The American make sells for $5.20 a dozen or about 57 cents each. The German makes are much cheaper. Pduning knives are in demand, Russia and Germany filling this want at prices ranging from 37½ cents to $1 each. The American knife comes much higher, retailing from $1 to $2.50 each. In shears, the French lead, with Germany second. American shears retail at $6 per dozen for the 7-inch length, and $6.90 for the 9-inch length. American sickles retail at 50 cents. English and Austrian are lower in price. American lawn mowers come at $5.70 to $10, according to size."

POWER FARM MACHINERY.

Tractors are coming into the district in increasing quantities and are used for ploughing. They should have the light American class of wheel for travelling over soft soil; the heavy English wheel is not suitable, and adds unnecessarily to the cost. Complaint is made that they "pack" the soil. A few of the "caterpillar" type have also been introduced and are quite effective.

AN IDEAL PLOUGHING OUTFIT.

The machinery expert of a firm of English traction engine engineers, who has had experience with all kinds of power ploughs, stated that the ideal ploughing outfit for South Russia was a 60 h.p. crude oil traction engine, and an 8 gang plough; it could be handled well by three men, and should plough with ease 10 dessiatines (27 acres) a day. A dessiatine an hour was what the Russian landowner now looked for. The steam tractor, it was admitted, was more elastic than the oil-driven engine, and perhaps better suited to the labour conditions available; the oil engine, however, had the advantage of fuel, and the fuel question, it was thought, must ultimately govern the solution. Straw for fodder is now growing in appreciation; it was previously burnt, and complaints were heard as to the waste of straw firing. Wood was too expensive, and coal, with the hauling, doubled the cost. Hauling water from wells is also an expensive item, as oxen have to be kept continually at work, especially if the water supply be at a distance.

This gentleman added that the power ploughs of a well-known Canadian maker had been used and it was now believed that plenty of them could be sold if they were handled by an efficient agent. This Canadian plough was certainly not inferior to the best American plough of that class, which was selling freely.

There is inquiry for alternative sources of supply to Germany for oil motors, gasolene marine motors, Diesel engines and pumps.

AUTOMOBILES.

The turnover in automobiles in Odessa has been large. The best known German and other makes have sold well. British makes were less freely offered. But the opportunity for the cheap standardized vehicle would seem to have come and the subject is already engaging the attention of well known American makers. The

country roads in the south are worn more evenly by the traffic than elsewhere in Russia, owing to the character of the farm wagons employed, and motor cars have therefore less to fear from the shocks of rough travelling. The rich farmers are becoming purchasers of cars, and the market therefore is distinctly widening.

CHEMICALS AND DRUGS.

The gowing use of fertilizers shows that even the "black earth" has its limits in fertility. The sugar regions in the Kieff division also require large supplies of fertilizers annually. They have come previously via Riga and Libau, and also via Odessa, from Bremen and Hamburg. Thomas slag and sulphate of ammonia should interest Canadian producers in the Maritime Provinces. For the other coal tar derivatives, carbolic acid, creosote, pitch, etc., there is also a market.

For drugs and pharmaceutical preparations, largely in German hands hitherto, Odessa is an important market; the consumption has trebled in the last ten years and is valued at 3,500,000 roubles annually. Patent medicines sell well.

TANNING MATERIALS.

Tanning materials find a ready market in the local industry which is large. Hemlock extract is not used, as has been previously explained, but mainly "decolourized" extracts.

Mineral pigments and dry colours are sought, but they must be unmixed ,owing to the heavy duty.

American boots and shoes, here as elsewhere, are rapily growing in favour for town use, and dealers will be pleased to consider the Canadian article as Austrian and German products will have to be replaced. Odessa has a large departmental store, not unlike the one in Moscow, and this should serve for the general introduction of Canadian articles for the household, and along hardware lines, etc.

PRINTING PAPER.

News and printing paper is supplied by Finland. Better classes of printing come from the south of France, via Marseilles. The commonest newspaper costs 8 to 9 kopecks per Russian pound delivered in normal times, but is selling now at more than double that price. It is believed that direct shipments at reasonable freight rates should enable Canadian mills, favourably placed for export, to compete in the Black Sea ports.

TYPEWRITERS.

A cheap typwriter would suit this market. American makers of standard machines have recently arranged to put one on the market, which is identical with those now in use, but with the *de luxe* additions, which are governed by many patents and royalties. This machine is offered, in a different style, at 50 roubles under the standard article, and is already selling well. In Russia, as perhaps elsewhere, the profits of the typewriter business is not to be obtained on the machines sold so much as in the sale of typewriting supplies.

Sewing machines have come largely from Germany. The future should hold opportunities for Canadian makes. Only those worked by hand are in demand.

It is believed that the success of Canada in the Black Sea region will largely depend upon direct shipping facilities, a point which will be dealt with later.

KIEV.

Inquiries at this important point gave, on the whole, not greatly dissimilar results to those already mentioned in the preceding remarks. Financially Kiev is in a specially strong position. The native Russian purchasing and intermediary firms

are energetic and well organized; the Jewish element, although influential, is not large. German competition has held a strong position in this place in the past, and German engineering and German capital had a good deal to do with equipping the great industry in this district—the sugar industry.

SUGAR FACTORY SUPPLIES.

This special feature of [illegible] that for Canadian firms engaged in the manufacture of sugar factory requirements and supplies there might be an opening here if their specialities were introduced through the right local houses. The same remark applies to the special machinery and implements used in connection with the cultivation of the beet, in which the region is so largely devoted; and there is further the market for fertilizers, which are imported in great quantities. Considerable amounts of red and white lead are also annually required for the hundred odd sugar-making establishments, belting for transmissions, paints, etc.

STEEL SECTIONS.

The supply of many machinery parts and castings for sugar machinery, which require renewing, is also an item to be considered, especially the steel cutting or slicing sections, for which an alternative source of supply to Germany is much desired. Of the last named some 250,000 are wanted annually—at the price of about one rouble each.

Particulars and samples have been secured for the information of Canadian manufacturers who may be able to enter the market.

KHARKOV.

Nicolaieff was visited for a few hours. This city is a flourishing port on the river Bug, a few miles above the point where it discharges into the Black sea. The city has 125,000 inhabitants. Here are the naval shipbuilding yards of the Government, where war vessels of the largest types are under construction. Openings were pointed out for the supply of the smaller electrical motors for the battle cruisers and other ships, for which Germany had originally contracted. Nicolaieff's other chief industry is the export of grain, in which the port now surpasses Odessa. Like several other ports on the Black sea, Nicolaieff has become independent of Odessa, and this circumstance explains the relatively slow growth of Odessa in recent years.

MINING AND AGRICULTURE.

Kharkov, the administrative centre of the coal and iron mines of Southern Russia, is at the same time the great agricultural fair centre of the south. Four important fairs are held here annually. It is a place, therefore, for supplying the varied needs of the contiguous wide-lying, close-settled, rich agricultural regions of which the Kharkov and Voronesh governments are the best. A number of large manufacturing houses of agricultural and general machinery, hardware, etc., have their headquarters here. It is unnecessary to reiterate details of the openings for articles, which are common to other districts. In passing, however, the promising outlook for tractors, particularly for ploughing, may be mentioned, and the room there is for improvements and simplification in the construction of these machines, which may tend to make them "fool" proof. The trade is, however, difficult to finance, and requires an efficient staff of experts. Agents, therefore, look for a liberal backing from the manufacturers.

American boots and shoes are making progress, and business seems to be possible for the Canadian article.

The motor car habit is growing, because cars have stood the bad roads better than was expected. On the country estates they are becoming numerous.

FUTURE COMPETITION.

There was a feeling of apprehension abroad as to the outlook for Canadian and other rival agricultural harvesting machinery, after the American combine had perfected their arrangements for output. It was considered that Canada's remedy would probably be found in equipping auxiliary works in the country, possibly with the co-operation of English makers of machinery of other non-competing types. In other machinery specialities Canadians, it was said, would do well to co-operate, and so reduce the effort and expense of entering the market. There was probably disappointment ahead for the individual firm, except in rare cases. The view of one leading dealer regarding future German competition was that it would necessarily be formidable, owing to the position which the Germans had held for years, the class of goods which they had supplied, which will also correspond to the reduced power of expenditure of the Russian people after the war, and perhaps most of all to the support of the middleman, the Jew trader who has no nationality, and whose interests hitherto have been chiefly pro-German. Allied countries, it was stated, would require not only to be in a preferential position as regards tariff, but also ready to supply what was wanted in suitable lines. It was scarcely conceivable that the German trade position could be entirely superseded.

ROSTOV.

Geographical position and the enterprise and the energy of its population are responsible for the rise of Rostov, in Southeastern Russia, within the last thirty years from a straggling Cossack village to one of the best built of modern cities, with 250,000 inhabitants. It is the natural outlet of the fertile grain growing and stock raising region of South-eastern Russia, which is drained by the Don and Donetz rivers. Improvement works, including locks, on the Donetz recently completed, have brought the valuable coal measures in that river basin within reach of the seaboard, by water transportation. Three railway systems, converging at Rostov, tap the hinterland, including the Northern Caucasus, and it only remains now to link up, by a short canal, the great Volga river with the Don, a work which is to be resumed immediately after the war, to complete ideal conditions of transportation for Eastern Russia in Europe, and to add to the good fortune of Rostov.

LEADING MARKET FOR FARM MACHINERY.

Rostov is the largest centre for the agricultural implement and machinery business in Russia. Half a mile of continuous showrooms and warehouses, which line both sides of the handsome Sadovaya (Garden) Boulevard, filled with foreign machinery and imported goods, demonstrate the importance and variety of the trade turnover. Branches of these firms and a complete organization of agents are maintained throughout the dependent districts. Rostov's business houses have a regular trade with Astrachan, and supply goods to the Trans-Caucasian districts, and even to Northern Persia. It is the first wool market in South Russia; it purchases and distributes the entire wool clip of the Caucasus and the merino and "Donskoi" wools of the south, the last of which, the Donskoi, is shipped almost entirely to the United States and Canada for carpet making.

With the steady conversion of the steppe from horse and stock raising into arable farming, the demand for machinery is constantly growing. The soil, and the general labour conditions all favour the employment of the most advanced machinery and nowhere is the use of power farm machinery more developed. Rostov houses alone, in 1914, disposed of 600-power thresher outfits, valued at nearly $2,000,000, as against 500 in 1913. Of these, 400 sets were British, and the remainder mainly German. The terms upon which these are sold are generally one-half the cost to be paid in the first year, one-quarter the second year, and the final quarter in the third year.

A great portion of the [illegible] machinery sold never reaches Rostov. Imported at a period of the year when the Sea of Azov is closed by ice, the machinery goes to Novorosisk in the [illegible] and is distributed thence. During the summer, boats drawing not more than [illegible] most of the Azov Sea harbours. The Don is now being dredged to that depth as far as Rostov, and in the meantime motor lighters effect the discharge and loading of larger vessels, which cannot now enter the river.

Canadian farm machinery is well to the fore, but there are openings for further capable and reliable firms. The [illegible] firms are, on the whole, well known to be financially strong, and [illegible] open account. As a consequence a stock of machines must always be [illegible] selling as it sells. Credit to purchasers varies from six months to [illegible] machinery from two to three years, payable in certain agreed proportions, with interest at 6½ to 7 per cent.

An opportunity has now arisen for supplying the reaper sections and the steel attachments hitherto imported from Germany in large quantities. The prices given were 4¼ to 4½ cents each for sections, and 2½ cents for the attachments. Both are duty free.

BINDER TWINE.

The scarcity of binder twine has been a most difficult one this year, and has seriously interfered with the sale of binder machines. The price of twine is threefold the usual price, i.e., 20 to 24 roubles per pood (36 pounds), as against 7 and 8 roubles. The Government is reported to have made contracts with an American Company for from three to seven million poods of twine, delivered in New York. Enquiry as to the prospects of Canadian manufacturers engaging more extensively in the manufacture of this article was repeatedly made.

Apprehension regarding the future of the harvesting machinery trade was general among the dealers in Rostov; the competition of United States firms was a matter of general complaint; it being felt that the war had only postponed an awkward position.

FLOUR MILL EQUIPMENT.

Flour milling machinery in small units is also in good demand, as well as gasolene and oil motors for operating them. The Diesel oil motor type seems to hold the market. German and Swiss makes predominate. There is an opening for a good two-cylinder motor, a cheap one to compete with the Benz make of from 3½ to 30 b.h.p., and also for one of the Diesel type for larger power users. For country purposes the question of fuel is all important, [illegible] and oil being dear and in uncertain supply. Competition has been keen in Rostov in this line and at least twenty firms were carrying agencies before the war.

FISHING NETS.

An article in which Canada might take an interest is fishing nets, hitherto supplied from Germany. The measurements are 25 to 75 meshes broad, made in meshes of 10 to 44 millimetres wide, of [illegible] or cotton of various thicknesses. Annual purchases amount to 75,000 pieces, 150 metres each in length.

Larger nets 150 meshes broad, in meshes 16 to 57 millimetres wide. Annual purchases, 325 tons.

MINERS' LAMPS.

The coal mines administration in the Donetz basin are looking for an alternative source of supply for the German-made miners' lamp which is used, known as the "Wolff" pattern. A suitable lamp of similar design burning mineral oil could be passed and adopted. The "Wolff" lamps were supplied at 3.50 to 4 roubles each.

Efforts to make them in Russia have not been conspicuously successful, at the enhanced price of 5 roubles. A sample lamp is being obtained for the Department. Thirty thousand are disposed of annually.

The previous notes respecting motor cars, leather and leather articles, chemicals and drugs, etc., may be taken as applying equally to this point.

There is, however, a good local demand for aluminium goods, household utensils, spirits and paraffine stoves (of the Swedish variety), lanterns, and especially for hurricane lanterns.

GRAIN ELEVATORS.

Of special interest to Canada is the extensive programme for the building of grain elevators upon which the Russian Government is now embarked. The objects in view are to facilitate the movement of the grain crops and at the same time to afford the farmer some assistance in warehousing and disposing of his crop, without the losses and sacrifices to which he is now exposed, owing to the absence of anything like adequate storage and owing also to unscrupulous middlemen.

The scheme for Southeastern Russia comprises no less than 110 elevators of various sizes, which are to be completed by 1920. Twenty-one of these elevators are to be in the Don territory, exclusive of two of 25,000 tons capacity to be built in Southeastern Russia under the Department of Trade and Finance. The Vladikavkaz Railway Company let a contract, just before the war, to a German firm for a larger elevator on the riverside, but this has now been cancelled, and the company are looking for other competent contractors for the work. One modern elevator only exists at present in the port. It was completed quite recently and is a suction elevator built by a firm in Dresden, but it does not seem to have been the success expected—which local report attributes to faulty construction.

Particulars of the Government elevator scheme are to be obtained in Petrograd from the *Commission des Magasins à Grains* of the State Bank, which is charged with the financing of the elevator programme.

PROBLEM OF SHIPPING FACILITIES.

The problem of Canadian trade development with Southern Russia on anything approaching a satisfactory scale appears to be largely one of direct shipping facilities between Canada and the Black Sea. The existing lines making connections for cargo are practically speaking, wholly indirect, and involve transhipment, either in the Thames, Hull or a Dutch port. Transhipment is always a handicap, if it does not ultimately kill trade, freight charges being thereby almost doubled. It may be urged that if a direct service with the United States has not proved possible, what chance can there be for a Canadian steamship service direct with Russia. A purely cargo service, however, does not preclude utilizing and developing the opportunities for Canadian trade at intermediate ports, and there are at least two if not three such points in the Mediterranean, which, both in going and in coming, could be made to serve that purpose and thus help to maintain a direct service with the Black sea. When investigating the possibilities of the Western Mediterranean for Canadian trade some years ago, it was found that the prospects of freight for a line of steamships were by no means discouraging, and with the Black sea now added, the position would appear to be very materially improved. The route suggested might be somewhat as follows: Barcelona, Piræus, Smyrna or Constantinople and Odessa, and a connection with Novorosisk. There might be a slight variation according to circumstances on the return voyage. Outward freight would consist of agricultural and general machinery, manufactures, dried cod-fish, wheat and flour, pulp and paper, sawn lumber, coal distillation products, pitch, carbolic acid, creosote and sulphate of ammonia, chemicals, etc.; return freights from the Black Sea, raw beet sugar, as the main standby, tobacco, hides and skins, wool, liquorice root, salt, hemp, etc., with fruits, dried and fresh and other products from the Mediterranean.

A monthly service [illegible] from 5,000 to 6,000 tons should suffice. Manganese and ore shipments [illegible] the Black Sea would be inadmissible except for tramp vessels.

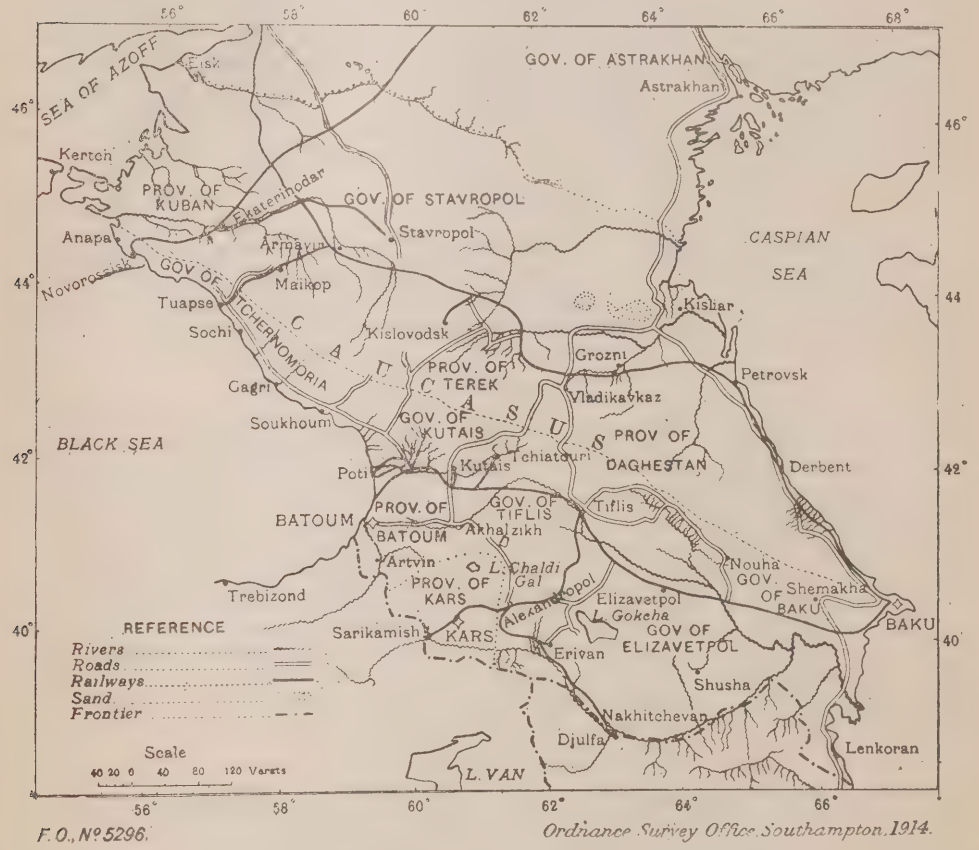
PASSENGER SERVICE FOR EMIGRATION.

It is believed that the problem would be probably solved if it were decided to organize a passenger service, from the Black sea with Russian emigration as a basis. There is every possibility of a [illegible] from South Russia after the war, and it is well known that Russian emigrants invariably prefer to travel by other than Russian ships. The line might connect with an Italian port for the same purpose and for freight. It is useful to recall here the intention of the German lines to organize a service of this character from the Levant, shortly before the war, which is not likely to be revived.

V

THE CAUCASUS.

The following notes on the Caucasus, which was not visited in person by the writer, have been assembled with the aid of the British consular officers, and from other reliable sources. They will serve as an indication of the general position and the possibilities of that market for Canadian manufacturers.



Sketch Map of the Caucasus.

The Caucasus region covers an area of some 250,000 square miles and is divided into two districts of unequal size: the Northern, which is the larger, with an area of 145,000 square miles, is of great agricultural importance; the Southern, consisting of the foothills and ranges of the Caucasus, with much mining, great petroleum fields and valuable forests.

IMPORTS INTO THE CAUCASUS.

The chief foreign imports into the Northern Caucasus are agricultural machinery and implements. The whole trade is in the hands of foreign firms in Rostov on the

Don, who have branches in the province of Kuban and Terek and the Government of Stavropol. The bulk of these imports never see Rostov, but are shipped direct to Novorosisk, its winter port on the Black Sea, and distributed thence.

[illegible] the lion's share of this trade, but Canadian machinery enjoys a reputation, which centres for it steady growing sales. Figures of the total [illegible] unobtainable. These, however, received from the United [illegible] in 1913 were 3,700 tons of agricultural machinery, 3,290 tons of [illegible] and threshers. There were also 1,050 tons of machinery and parts, 425 [illegible] and fittings, 405 tons motors and fittings, 250 tons hardware, 15 tons [illegible] 11 tons belting, 24 tons crucibles, 1,040 tons Bessemer coils, steel wire, 950 tons sewing machines, etc.

ENCOURAGEMENT GIVEN TO IMPORTATION OF MACHINERY.

The climatic conditions of the country, which are considered the best in Russia, the extremely fertile soil, and the labour position all favour an increased employment of machinery. The local Zemstvos do everything to encourage a high standard of farming. They maintain implement and machinery stores, and furnish the latest and best implements to the peasants on easy terms of payment.

MOTOR PLOUGHS.

Motor ploughs are being introduced and are believed to have a great future. The chief supply of ploughs came from Russian works, but Germany and the United States [illegible] a great many modern ploughs, as well as pulverizers, machinery for small grist and flour mills, and the oil motors for driving the same, iron shovels, forks, etc.

OIL WELL SUPPLIES.

With reference to oil well supplies and machinery for the oil fields, the greater portion of these come from abroad and are handled by local dealers and agents, although it is understood the English companies sometimes obtain their more important machinery direct when no agency has been granted locally.

In an American Consular Report published since the beginning of the war, it is stated that "a large business is done in oil and water drills. The American rotary drilling system has recently been introduced and is rapidly becoming general; also [illegible] from the smallest size for household use to the large centrifugal pumps for irrigation find a ready sale, but the supply on hand is low. Grist mills, corn shellers, milling machinery, oil presses, rice hullers and dressing machines, screw cutting machinery, compressors, lathes, and belting are always in demand."

PROSPECTS FOR SAW-MILL MACHINERY.

For Canadians the prospects for saw-mill equipment and supplies demand special attention on account of the great future of the lumber trade in this district. The above-mentioned authority also states "there are 250 to 300 saw-mills in operation in the Caucasus, employing 3,000 men: all these are run by water-power. American circular solid-tooth saws are chiefly used."

Hydraulic motors for utilizing the power of the numerous rivers and streams in the Caucasus have also an important future, according to the Chief Government Inspector for Factories at Tiflis, who invites correspondence in that regard.

SHIPPING FACILITIES NECESSARY.

The trade with this region would be greatly assisted were the direct shipping facilities with the Black sea of a more regular and satisfactory character. The only

direct service to Batoum from America before the war was that of the American Levant Line, sailing under the British colours, which required improving in order to become really effective.

The British Consul at Batoum is of the opinion that with the introduction of regularity in sailings there is every likelihood of expansion of direct traffic with the American continent. It is well known that the Hamburg-American Company in the spring of 1914 set about competing for the traffic offering on this route, and commenced to run such a line between the United States and Batoum in opposition to the British service in question. This project is now necessarily in abeyance. Hitherto goods have had to find their way to and from the American continent with trans-shipment at French, German or Dutch ports.

VI

SIBERIA.

GENERAL SITUATION.

For the purposes of trade development, Siberia falls into two separate divisions, viz.: Western and Eastern Siberia. In the western division, stretching from the Urals to a line drawn through Irkutsk, the local trade conditions and their controlling influences may be assimilated to those operating in European Russia. In Eastern Siberia, including the Trans-Baikal province, however, special geographical and commercial factors tend to make this remote region one apart, and the trade of this district must therefore be dealt with by and for itself.

Siberia, as a whole, may be said to be peculiarly dependent upon foreign trade exchanges for her prosperity. The population of the country, now 13,000,000 is being continually recruited by migration from European Russia, the net migration for the fifteen years from 1898 to 1912 having been no less than two and three-quarter millions. It is a fact moreover that the producing and consuming power of this population is relatively much higher than that of any similar proportion of the Russian people in the rest of the Empire.

EXPORTS.

The following figures for 1911 are characteristic of the exports of Siberian produce:—

Items—	Poods. (1 pood=36 lb.)	Value in Roubles (1 rouble=51·5 cents.)
Cereals	44,500,000	30,000,000
Butter	4,000,000	50,000,000
Hides	.....	6,000,000
Wool	.....	4,000,000
Meat, poultry and game	2,500,000	7,000,000
Animal fats	500,000	3,000,000
Eggs	200,000	.....
Cattle ..head.	65,000	2,500,000

Of this trade the greater part must be credited to Western Siberia.

IMPORTS.

The following figures show the principal imports into Siberia:—

Items—	(1 pood=36 lbs.)
Dry goods	1,100,000
Groceries and haberdashery	2,000,000
Pig-iron and steel	6,500,000
Metal manufactures	8,000,000
Agricultural machinery and implements	5,600,000
Sugar	2,000,000
Chemicals and colour merchants' materials	2,000,000
Salt	1,500,000

It is worth noting that in several of the above groups such as metal manufactures and agricultural machinery, Siberia already is but little inferior, as a consumer of imports, to European Russia.

HOME TRADE.

During the last ten years, the home trade of Siberia has grown from 60 to 150 million roubles annually. In the Akmolinsk province in 1911 ,the 105 fairs and

markets carried on business to the extent of over 100,000,000 roubles. Trade expansion is also shown by a number of vital factors such as the carrying trade returns of the chief centres of distribution, the growth in the number of banks, forwarding houses, insurance offices, etc., and in the extraordinary activity of the building trade.

There is everywhere an increasing tendency toward intensive and advanced methods of exploitation of the chief products of Siberia. The growth of the butter and egg exports has been phenomenal, when one considers the problems of transportation and of markets. Bacon, a more recent article of export, is rapidly becoming a trade of first-class importance. The census figures of 1910 in regard to factories and their production, are significant of the general movement in progress. These statistics gave the number of factories as 14,160, with an output valued at roubles 75,000,000, an increase of 75 per cent in the number and of 150 per cent in production over the position in 1900. (The Russian returns class as factories all small industries employing hands.) The chief increase in these establishments has been in connection with flour-mills, saw-mills, breweries, etc. Practically the entire equipment of these and similar undertakings was imported from abroad.

Apart from the agricultural wealth of Siberia, there are the forest, mineral and fishery resources, whose development presents great trade possibilities. It is estimated that one-half and the best half of the forests of Asia lie in Siberia. Four-fifths of Russia's gold output comes from Siberia. The yield there of pure gold has risen from 1,794 poods in 1900 to 2,732½ poods in 1911, and it is stated on good authority that with the completion of the Amur railway the present annual yield should easily be doubled, and this despite the restrictive character of the government mining regulations. Silver is widely disseminated, but little has been accomplished in silver mining because of the depreciation in the market value of the metal. On the other hand, copper deposits of great value have been proved, and are in course of development. Coal, moreover, exists in abundance throughout Siberia and is actively mined. The presence of iron deposits in the Steppe country and notably in the Maritime province of Eastern Siberia in juxtaposition with coal, is also an indication of the openings for trade, which the country must offer even under the present moderate rate of development.

VALUE OF TRANSPORTATION FACILITIES.

One of the most essential factors in the commercial and industrial development of Siberia, has been the facilities of distribution by railways and the developed water routes which are available. The whole hydrographic system supplements the trans-Siberian railway, and supplies for literally thousands of miles, north and south of the line, the most splendid means of cheap access to vast areas during the greater portion of the year. These facilities are being continually increased by the construction of new railways and by river improvement works, which are aimed at connecting the whole river system of the country for practical transportation purposes.

(*From the Times.*)

Map of Western Siberia showing the Trans-Siberian Railway.

VII

WESTERN SIBERIA.

Siberia being practically without manufacturing industries, it follows that there is a large and growing market for almost all kinds of manufactured articles, of which agricultural machinery and implements stand easily at the head.

In complicated machines, such as self-binders, reapers, mowees and rakes, the sales of the International Harvester Company's Moscow works dominate the position, and are supplemented by imports from the United States and Canada. These arrive via the Baltic and Black Sea ports. Ploughs are now mainly of Russian manufacture, roughly but strongly finished, all patterned after the Sack or Eckert (German) types. The walking plough is used almost entirely, combined with a sower, which drops the seed into the open furrow, the next following share covering it in. Two and three furrow ploughs of this description sell for $17 to $21, four to seven furrow, with seeder, $20 to $44. Germany has sold a great many ploughs of the better class, a trade which is now worth capturing. The shortage of ploughs in Western Siberia is already considerable, and dealers at Omsk were anxious to learn what Canadians could do in supplying the market, especially in single and double ploughs of the "Sack" type (original model or improved). Disc drills and disc harrows have become popular. In disc drills, a good article is manufactured by the large Anglo-Russian factory at Ekaterinoslaf (Ellworthys), which suits the soil conditions of Siberia. The discs are fitted at small intervals, four inches instead of the usual six inches; they are also adjustable, an arrangement which is regarded as an additional advantage. In this particular the Russian disc drill is held to excel the imported article, a point to be duly noted by Canadian manufacturers. Potato diggers are also in demand; they should be lighter than the ordinary American pattern and should be provided with a more stable delivery table. In regard to cultivators any improvement in construction which would render the teeth less liable to be clogged by weeds, would be welcomed and ensure good sales.

THRESHING MACHINES.

Small threshing machines, with horse gears, are used in great numbers and are generally in short supply. They are being successfully imported from Great Britain in competition with the local make. The prices at factory for the 4-horse-power size are 120 roubles; 6-horse-power, 140 roubles, and 8-horse-power, 160 roubles. Freight from factory to Omsk is about 50 roubles. Power threshing outfits come mainly from England and Germany.

PORTABLE ENGINES.

Of late the competition of Germany, especially in portable engines, had become a serious factor. Oil tractors are preferrd as the prevalence of alkaline water in Western Siberia is against the steam-driven engine. Lightness is a desirable feature; the heavy engines with their narrow wheels pack the soil and prevent growth of vegetation. Tractors of the "caterpillar" type have been introduced. A few sets of these for ploughing have been disposed of among the larger land owners and the prospects for increased business are good. The country, however, is still relatively poor, and the general use of expensive farm machinery must be a matter of slow growth.

FLOUR MILL MACHINERY.

Flour mill machinery (roller process), to grind one thousand to three thousand poods (1 pood = 36 lbs.) to 2,000 bushels in twenty-four hours is in increased demand, as well as the oil engines of the Diesel type, of from 30 to 50 horse-power, required to operate it. Extra heavy fly wheels are preferred.

CREAM SEPARATORS.

The rapid rise of the dairying industry in Western Siberia is responsible for a large demand for separators, which have hitherto been supplied by Germany and Sweden.

FARM WAGONS.

Farm wagons, built of ash, with oak hubs, in three sizes, are needed in large numbers, the old sources of supply in the Caucasus and Northern Russia being quite unable to meet the present requirements, as Russian firms are engaged on war contracts; prices range from 75 to 89 roubles each delivered at Omsk. It is to be observed that these prices are exceptional, and not likely to be maintained in normal times. The freight charges on carloads from Black Sea ports average 8 roubles per wagon.

HARDWARE, TOOLS.

In regard to general hardware, tools, etc., visits to the large general stores at Omsk showed that goods of German origin are carried, if not exclusively, at least to a surprising extent. Stocks everywhere are being rapidly depleted, and the question of replacing them is causing anxiety. In one typical store, with a business of 3,000,000 roubles a year, the following articles were noted as being urgently required: Common cutlery, skates, razors, barber's hair clippers, pumps (hand pumps especially), screw cutting lathes, stocks and dies, bolts and nuts, pulleys, valves and fittings for radiators, electric light fittings lamps, bell pushes and fans, meters, dynamos, leather belting, common oil burners, clothes wringers, drills and tools, files, frame saws, hand saws, drilling machines, common shovels and locomotive shovels, freezing machines, scythes, hay forks, enamelled ironware, tools of every class and builders' hardware.

SEWING MACHINES.

There is a promising market for sewing machines; outside of those made in Russia by a well-known American company, the greater number sold are of German origin. Supplies of the latter are now exhausted. The machines are bought on the basis of extended monthly payments. The following normal prices of these machines, delivered, duty paid at Omsk, are as follows: "Long shuttle," 17·71 roubles; "Ring shuttle," 21 roubles; "Central spool," 25·25 roubles; "Vibrating," 19·60 roubles. These prices are for machines with covers, or if without, 2 roubles cheaper. Terms are nine months' acceptance from the date of shipment, duty and freight to be paid by the purchaser.

TRADE METHODS.

As has been previously stated Moscow merchants control about 50 per cent of the trade of Western Siberia. These firms have branches in the principal centres, but the purchases for their stores are made in Moscow. The growth of the country and the establishment of strong local independent firms however are gradually bringing about a change and direct buying must ultimately become a general practice. Most of the foreign firms doing business in Russia pay little attention to the Siberian market and seem unaware of its importance. They are content often to hand over their representation for the whole of Russia to a single firm in Petrograd, with the result that their interests suffer. The practice of the agent is to appoint a sub-agent for Siberia,

and even supposing the last-named to be an active salesman, the fact that both intermediaries are looking for a substantial profit on any business effected, increases the cost of the article to such an extent that sales are restricted if not rendered impossible. German houses have abandoned this practice for several years. By trade grouping, however, and by sending regularly competent travellers, speaking the language, and carrying a full line of samples to the chief centres, they have been able to build up a direct trade on a satisfactory basis, by thus getting close to the consumer and meeting his wants.

EXTENDED CREDIT.

The granting of extended credit has also been an important factor in securing business in Siberia. There is little liquid capital in a country during the early stages of colonization and agricultural development. In practice, therefore, the foreign exporter must be prepared to carry on business with his own capital. Although the Western Siberian market is extensive, it is intrinsically safe, if care in the granting of credit be exercised and operations are limited to selected solvent customers.

TRADE GROUPING AND LOCAL AGENTS.

Financial strength to carry on trade is a greater necessity in Western Siberia than in European Russia, and trade grouping by outside firms wishing to enter that market is of first importance. While the profits are great, expenses are also high, and it is a wise policy to share them in testing a new market and its possibilities. The commercial penetration of Siberia by Germany has been remarkable. The German language easily takes precedence there for business purposes over English and French. Germany has been greatly assisted by the many German-Russian subjects, who have moved from the West into Siberia, and who possess an intimate knowledge of the country, its conditions and people and the credits that can safely be granted to the individual, local dealers and landed proprietors, etc. Valuable agents could probably be found for Canadian purposes, as many are now at liberty to revise their positions in regard to the future. In interviews with the best of these local agents, it was urged that responsible representatives of grouped industries should visit the country and get into touch with conditions. This they thought was the only way to obtain that true understanding which should influence action.

AVERAGE CREDIT.

Apart from agricultural machinery, mining and general machinery, the average credit of 6-9 months from date of delivery of goods—which generally takes three months from remoter countries—might have to be faced, although it was stated a modification of these old terms might be arranged in future. There was no use in thinking of opening up business under other conditions. The trade was not cut and the cost of credit could be realized in the prices. Trial orders must not be ignored, but receive with the larger orders the closest attention. Such care would repay the exporter when once the customer had an acquaintance with his goods. Bank discounts on prime bills, three months, 6½ per cent; six months, 7-7½ per cent; nine months, 9-10 per cent, according to the character of the payers.

TRADE CENTRES.

The most advantageously placed centres in Western Siberia for business are: Omsk, Tomsk, Tobolsk, Novonikolaevsk, Krasnoyarsk, Irkutsk. The first and last three are situated at points where the trans-Siberian railway crosses the principal rivers of the country, which provide cheap transportation facilities over vast areas during the greater portion of the year. Omsk and Novonikolaevsk are of special importance as

distributing centres for agricultural machinery, etc., and the Government maintain at those points agricultural experimental stations and official testing grounds for [illegible] implements and machinery in the interests of the settlers.

FACTORS FACILITATING TRADE.

[illegible] certain special factors at work in Western Siberia, which facilitate trade. [illegible] must be considered the spirit of combination inherent in the [illegible] Siberia has given birth to a co-operative movement of great importance. This, perhaps the most promising feature of the new economic life of Russia. In 1912 there were already 22,000 co-operative associations of all kinds.

The following particulars are of interest:—

(1) The number of co-operative supply societies at the beginning of 1912 was 3,730, of which 291 were located in Siberia.

(2) [illegible] dairying interest in Western Siberia is represented by a union, comprising 530 societies, with 120,000 members, who show every desire to deal only through the societies for every article of merchandise they use. The societies, however, bind themselves by their statutes to the sale of dairy appliances only.

(3) Credit associations, consisting of groups of peasants, to whom government aid is given in the shape of credit on the joint responsibility of the group, exist in large numbers and are multiplying in the newer districts, as they are opened up and settled.

[illegible] are the official agricultural machinery and implement depots in nearly 300 centres of Siberia (220 in Western Siberia), which advance farm equipment at low prices to the poorer settlers, on easy terms of payment.

VALUE OF CREDIT ASSOCIATIONS.

In regard to agricultural machinery and implements, the effect of the facilities offered by these aids, coupled with the policy of the International Harvester Company of Moscow, has been to cause many wholesalers to withdraw from business. While this is perhaps regrettable, in a sense, it has its compensations for the manufacturer who by selling to the credit associations, is on safe ground. His rate of profit, it is true, will be diminished, but in view of the probability of a larger turnover, the aggregate profits should be greater, as the consumption of agricultural machinery must inevitably rise with the growth of settlement and the increased prosperity of the settlers. The shorter credit demanded by these associations enables the manufacturer to work with a smaller capital. The strong point about the credit associations is that they possess the local knowledge, which enables them to sell to the "right" people and, most important of all, they possess the means of securing a relatively quicker liquidation of debts and of enforcing payment in doubtful cases, by tactful pressure through their members. Their losses from bad debts are said to be practically nil. The wholesaler, on the other hand, has still the best class of farmers with whom to trade, and in practice, prices do not fall below a figure offering a reasonable profit. This has been demonstrated in the business transacted by the official agricultural depots, which are finding by experience that the cost of administration, and average losses, will not permit them to sell at the low prices originally fixed. Their competition, therefore, has not been the ruinous one which was predicted at the outset, and time and circumstances will tend to equalize matters for all. The credit associations by their statutes are wisely limiting their dealing to a small number of articles, and the general merchant thus relieved of a portion of his business, which caused him anxieties and often losses, is left with the supply of the general requirements of his clients of the peasant class.

OFFICIAL MACHINERY DEPOTS.

Particulars of the operations of the Co-operative and Credit Associations are not available, but those of the official agricultural machinery depots were furnished by the director of the Colonization Department at Omsk.

The Imperial Department of Agriculture maintains in Siberia agricultural implement depots for the supply of machinery and other articles to the poorer settlers on easy terms of payment. There are between 250 and 300 of these depots in operation, and the total sales have grown from 4,500,000 roubles in 1910 to some 7,500,000 roubles in 1913. The depots had machinery in stock at the end of 1913 to the value of over 5,000,000 roubles. The character of the turnover of these depots can be seen below in the list of sales effected during 1913.

The sales are generally made on the basis of payment of one-half of the value of the article acquired during the first year, the remainder being paid off in instalments according to the ability of the settler, which is governed by the result of the harvest he reaps.

According to a return issued by the Imperial Colonization Migration Commission, only 2½ per cent of the debts contracted by the peasants at the depots between 1897 and 1907 remained still unpaid at the close of 1913, and the percentage owing on the sales at that date for:—

	Per cent
1909 was	6·5
1910 "	11·6
1911 "	20·4
1912 "	28·6
1913 "	56·9

It will be seen, therefore, that the extinction of debt proceeds on what must be considered satisfactory lines, the actual loss due to non-payment being relatively negligible when the total turnover is considered.

STATEMENT OF SALES OF THE GOVERNMENT IMPLEMENT DEPOTS IN SIBERIA IN 1913.

	Number.	Value. (Roubles.)
Single ploughs	35,794	832,544
Double ploughs	4,198	188,460
Ploughs and seeders combined	1,934	131,085
Cultivators	497	24,084
Harrows	1,010	25,330
Broadcast seeders	264	52,001
Broadcast seeders and disc drills	473	68,524
Mowers	2,955	429,477
Hay rakes	2,962	185,341
Reaping attachments	1,206	29,849
Russian reapers	3,023	507,465
Reapers (others)	3,104	589,648
Binders	1,150	454,357
Factory made threshers with horse-power	1,234	721,181
Threshers (hand power), (home-made)	1,845	409,289
Winnowers and cleaners	6,205	240,434
Grain sorters and separators	347	83,529
Mill stones (sets)	576	46,169
Flax, hemp and cotton carding machines	154	21,696
Chaff cutters	374	14,830
Beating machines for flax and hemp	68	4,468
Hay presses	15	2,845
Oil pressing machinery	....	34,949
Cream separators	343	28,453
Churns	173	4,571
Wheels (wagon)	1,514	24,870
Wagons	2,891	268,565
Fire engines (pumps)	45	12,113
Weighing machines	454	17,919
Sickle and scythe grinders	1,801	23,677
Axes	7,213	7,232
Forks	3,271	1,811

STATEMENT OF SALES OF THE GOVERNMENT IMPLEMENT DEPOTS IN SIBERIA IN 1913—*Con.*

	Number.	Value. (Roubles.)
Shovels	1,362	627
[illegible]	3,939	2,512
Lubricating oil	24,159	73,497
Various cleaning machines	2,539	18,689
[illegible]	7,109	4,528
Wire and zinc sieves	12,626	5,399
Belting (leather)	22,005	27,711
" (woven)	21,052	13,362
Roofing sheets of iron and steel	214,193	567,976
Binder twine (poods)	18,254	165,606
Tarpaulins, sacks (number)	305,057	109,424
Grain and other products	53,675	51,401
[illegible]	.....	123,265

VIII

EASTERN SIBERIA.

From Irkutsk eastwards, the continuity of Russian territory to the Pacific suffers by the intrusive mass of northern Manchuria, which thrusts the frontier far to the north. The trans-Siberian railway is thereby forced to take a circuitous route in order to reach the coast over Russian soil. This portion of the line (the Amur railway, now all but finished) will open up rich agricultural, mineral and forest regions. The direct communication with Vladivostok is across Manchuria by the Manchurian railway, which is leased by and under the military control of the Russian Government.

Eastern Siberia has a population of nearly two million, the greater part of whom are located in the Maritime and Amur provinces. Systematic colonization, under Government direction, has already done much to create the foundation of permanent settlement, which must precede any successful opening up of the country's natural resources.

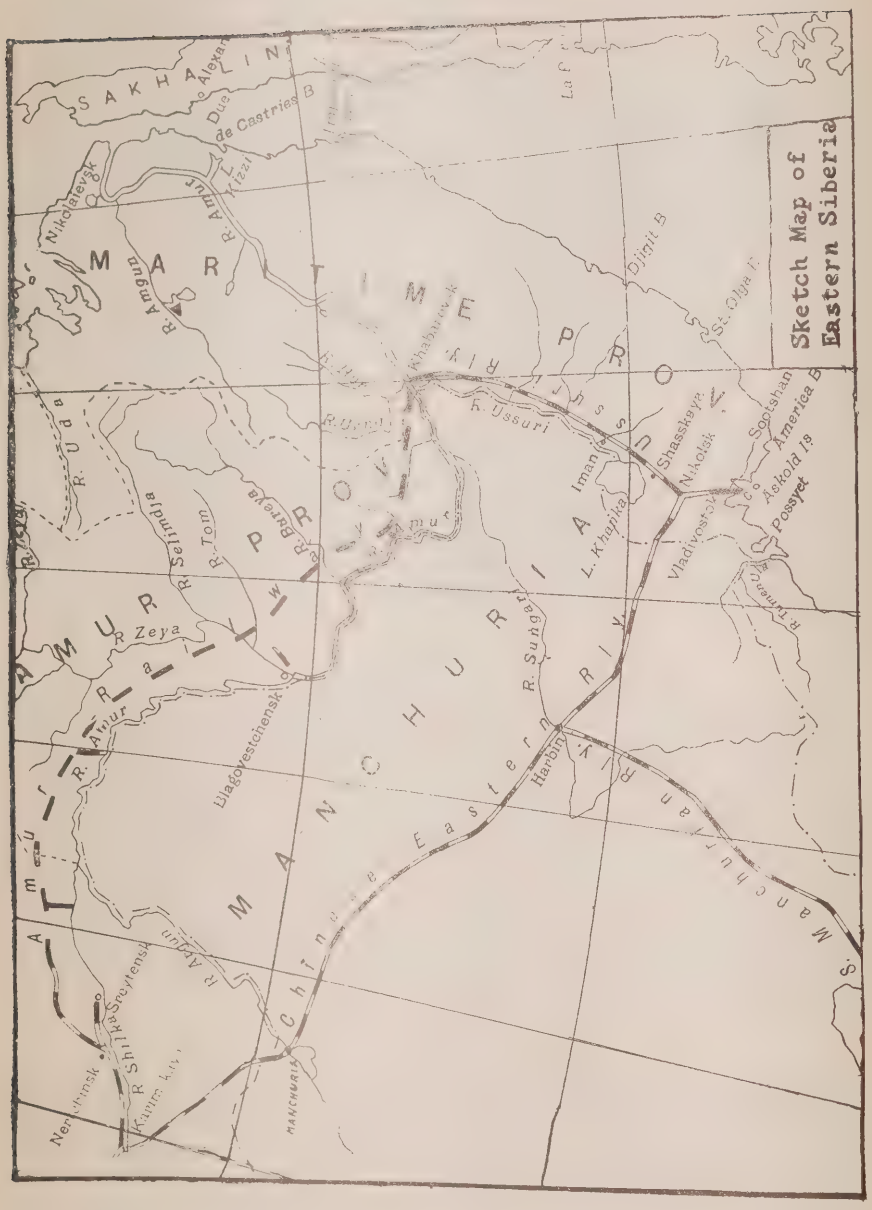
Geographical position is also largely responsible for rendering the trade position in Eastern Siberia subject to foreign influences, by way of the Pacific coast, to a degree unknown in any other part of the Empire. These influences, hitherto chiefly European, and German at that, may be expected to undergo changes and will be supplemented by North American contact, notably from the eastern, industrial portion of that continent. This is made possible by the opening up of the Panama canal, the new economic factor, which Canada enjoys on equal terms with her American neighbour.

VLADIVOSTOK.

The harbour of Vladivostok was crowded with vessels some of as much as 18,000 tons, which had passed through the canal. The significance to Russia of the port of Vladivostok during the last twelve months has attracted much attention to Eastern Siberia, and to the trade opportunities in that market. The interest thus aroused is not likely to disappear at the close of the war. The Russian Government moreover has made provision for the improvement of Vladivostok, and of other ports on the coast, and for steamship intercommunication, including a service on the Amur River. The relatively liberal tariff policy in force in Asiatic Russia, where the duty-free importation of a large range of articles is permitted, presents another favourable feature for trade. The Imperial Railway Administration have also recently agreed to put into force, at the end of the war, reduced through rates on merchandise shipped on through bills of lading via Vladivostok to points in the interior.

SPECIAL TRADING FEATURES.

The special features of the trade of Eastern Siberia are its detachment from exclusively Russian influences and traditions, and its concentration in a relatively small number of strong firms, technically Russian. These firms have a strong foreign outlook, owing to the geographical situation, and they conform generally to foreign business methods. The largest of them are in the nature of departmental stores, with headquarters at Vladivostock, Nikolsk, Nikolaevsk, Blagovestchensk, Zeya-Pristan, Stretensk, Nerchinsk, Tchita, Irkutsk, etc. They all do both a wholesale and retail trade, and act frequently as contractors for large undertakings, public and private, of a varied character. Their financial strength is unquestioned. These firms are supplemented by foreign firms carrying specialities, required for the development of


Sketch Map of Eastern Siberia
SAKHALIN
MARITIME PROVINCE
AMUR PROVINCE
MANCHURIA
Nikolaievsk
R. Amgun
R. Amur
R. Ussuri
Khabarovsk
Vladivostok
Shasskaya
Iman
L. Khanka
Sungari R.
Harbin
Eastern Chinese Ry.
Manchurian Ry.
Ussuri Ry.
Ulagovestchensk
R. Zeya
R. Selemdja
R. Tom
R. Buréya
Nerchinsk
Shilka
Argun
Kunar R.
Djigit B.
St. Olga B.
Sopshan
Askold Is.
Possyet
America B.
Manchuria
La Pérouse
Duc de Castries B.

the country's resources, and also conducting a general import and export trade on a commission basis. Many of these latter were German and have now been closed up, and it is for enterprising firms of other countries to replace them, and their activities.

RANGE OF IMPORTS.

A survey of the range of the imports in 1909-1911 at Russian Pacific ports is supplied by the statistical table which will be found in the appendix. It should be added that the trade in 1913 was on a much more extended scale, but the figures are not yet obtainable.

Interviews with the leading merchants, and an inspection of the larger departmental stores, seemed to indicate encouraging prospects for Canadian trade, provided business be handled along the lines which have been already suggested. Stocks of imported articles were everywhere low and the necessity of replenishing them was urgent. The old (German) sources of supply being stopped, there is every desire to trade with allied countries, which are able to supply the market with alternative products, and the present time, therefore, is undoubtedly opportune for investigating the position, and creating the organization for closer intercourse in this section of Russia.

SUGGESTED OPENINGS FOR CANADA.

The progressive settlement of Eastern Siberia must ensure a growing demand for agricultural machinery and implements, and for dairying appliances, flour mill equipment, ditching and stumping machines, pumps, etc. Stocks, however, must be carried at the chief centres so that the local dealer can display them. The Colonization Department is the largest buyer for the official depots, which are maintained in the country in the interests of the settlers. Saw-mill machinery, hitherto mainly obtained from Germany, is an article that has a great future if well pushed, as increased attention is being given to the exploitation of Siberian forests. Lumberman's tools could also probably be introduced with success. The largest firms operate free technical advisory bureaus which help in the selling of all kinds of machinery. Hand tools have a large general sale; machine tools are only used for industrial establishments and Government works. Small hardware has been monopolized hitherto by Germany, but certain classes of American hardware are now firmly established, such as locks, hinges, butts, etc. In axes and hatchets, the American axe is preferred to the Russian model. Japanese manufacturers are actively canvassing for business and samples of their goods are being offered in every direction. In many of these samples the quality leaves much to be desired, and although prices are low, it is doubtful on the whole, whether this competition will continue. A collection of samples of various staple articles is being obtained, to enable Canadian manufacturers to look into the question of producing a line of goods as regards use and price, suitable for the East Siberian market.

MISCELLANEOUS MANUFACTURES.

The activity of the building trade and the character of the buildings suggest openings for certain Canadian specialities, including metal ceiling plates, metal laths, galvanized corrugated culvert sections, electric fittings and fans. Moreover, light iron shovels, suitable for the coolie labourer, and miners' shovels of a local pattern are needed. Another article for which there is a market is steel carriage axles. Cheap iron bedsteads, strung with a wire mattress, supplied hitherto by Germany, is in considerable demand and in short supply. Sewing machines, which came from the same country, are wanted, as also are domestic labour saving appliances, such as wringers and washing machines, freezing machines (Swedish) and ice-boxes (refrigerators). Germany previously supplied the better class with cooking stoves of an American model which are still required. Light enamelled ironware is also purchased in large quantities.

The cheap piano (upright) came from Germany but might now be replaced by Canadian makes. For pipe organs there is no demand.

Wire, barbed wire, wire nails, are all to a large extent imported and the Canadian article is favourably known; bolts, nuts, and rivets are also considerable items. Radiators and fittings were imported by German agents, who kept a skilled staff for their erection.

LEATHER GOODS.

Leather for footwear purposes should find a good opening, although the same cannot be said of carriage leather. The former should be packed in small bales to avoid damage in transit, and the hides should be stamped in indelible ink, with the maker's name and with the quality of the hides. Light boots and shoes for town wear are in demand and the American shoe is gradually superseding those of German and Austrian manufacture. White deerskin shoes, moreover, for summer wear and other varieties with white canvas or drill uppers and deerskin sole have also been lately introduced and are good sellers. Purchasers would be pleased to hear from reliable Canadian manufacturers.

PRINTING PAPER, PAINTS AND DRUGS.

The news and printing paper business is unfavourable for Canada owing to the high duty and the competition of the Russian mills in the Urals.

There is a good demand for dry colours and for paints, which must be unmixed, the importers having their own mixing mills. Dry copper oxide is an important commodity, which comes mainly from France. It is used for painting roofs. Red and white lead, zinc white, acids (sulphuric, hydrochloric, carbolic), creosote, carbonate of ammonia for aerated water, the chemical ingredients of explosives, and calcium carbide are also saleable in Russia.

The usual range of drugs are in great demand, and these it was pointed out should be supplied in "flakes," and not in "crystals."

Tanning materials (e.g., hemlock and chestnut), etc., are also wanted.

THE FRUIT MARKET.

With regard to fruit, the importing houses in Vladivostok spoke encouragingly of the opening for fresh apples and pears from British Columbia, and for evaporated apples in rings and quarters. Canned (gallon) apples should also sell. With the assistance of the regular steamship service, maintained by the Russian Volunteer Fleet, with Vancouver, a satisfactory trade in fruit could probably be built up. The market lies in the urban centres in the Maritime and Amur provinces. These districts are too remote from Turkestan and the Caucasus, whence Western Siberia draws its fruit supplies.

IX

TRADE METHODS OF COMPETING COUNTRIES.

The main characteristics, conditions and currents of trade with Russia have been outlined in so far as they are considered to be of special interest to Canada. A concluding note may be devoted to a review of the various trade methods which have been adopted by leading competing countries in regard to Russian trade, and also the possible alternatives for Canadian manufacturers and exporters who desire to obtain a share of this trade.

The principal countries from which Russia derives her imports have been Germany, Great Britain and the United States.

GERMANY.

German manufacturers, after due trial, have abandoned the practice of establishing branch houses in Russia; it proved unprofitable. They subsequently took up and developed the intensive working of the market with travellers, who covered not only the chief cities like Petrograd, Moscow, Riga, Kieff, Odessa, Rostov-on-Don, etc., but also the larger provincial towns. These travellers carried elaborate collections of samples of a wide range of articles, representing often different industries, and, above all, catalogues printed in Russian with prices set out in Russian values. They quoted f.o.b. Russian port or a Russian frontier station, and were ready to meet the provincial wholesale dealer and the local stores by quoting similar terms with duty paid, and, if pressed, including delivery at the local station. As a further accommodation they conceded extended credits to suit the individual customers with the support of the German banks. German success in Russia was much helped by their ability to supply cheap articles for a market consisting so largely of a peasant population, who are anything but fastidious. Moreover they were also able by the circumstances of their competition and the clever adaptation of business methods to secure gradually the Russian market for better class articles.

GREAT BRITAIN.

Twenty years ago Great Britain practically monopolized the Russian market in manufactured articles, but she has since been overtaken by Germany owing to the disinclination to allow the long credits given by that country. Ultra-conservative methods of business and unwillingness to quote in Russian currency and weights and measures, or to follow the German example of quoting delivery at frontier with duty paid, hampered progress. It is said that the use of travellers in order to keep in touch with customers was neglected, and that British manufacturers declined to entrust their interest to export merchant houses. Thus the direct business became limited to the largest dealers in the Russian centres, and it might be said that the business Great Britain was doing in Russia until recently was due largely to the fact that British goods were actually demanded by customers, and not to their being actively pushed. Evidences of a salutary change in this regard are now at hand. That British trade with Russia is still as large as it is should be taken as a tribute to the intrinsic excellence of the goods supplied.

UNITED STATES.

The methods employed hitherto by United States manufacturers have been one of the two following:—

Either to appoint a sole selling agent for Russia and Siberia, or to entrust their export trade to exporting merchants' houses in the United States and Hamburg, this second method appearing to be most in favour. United States manufacturers have obtained better results with the Hamburg firms than with those in the United States as the former worked Russia somewhat intensively with travellers along the German lines, indicated above. For the American house thus relieved of Russian credit risks the business was easy and convenient, but it was necessarily of restricted proportions, the growth of which the manufacturer could not influence. Moreover, the advantage was not derived from the high prices obtained in Russia. The chief concern of the German firm was to give his Russian customer a wide choice of goods from all countries, as this ensured sales, and therefore he had no special reason to push the articles of any particular firm. Like his English colleague, the United States manufacturer was opposed to the granting of long credits and as a consequence the market was left to the German, who constantly improved his position.

THE ALTERNATIVES FOR CANADA.

Having regard to these facts, and in view of the new position that has arisen whereby German competition has been largely eliminated, it is of interest to inquire into the possible methods open to Canadian manufacturers proposing to share in Russian trade. They may be stated as follows:—

1. By correspondence. Business may be done in this way, but it can hardly be recommended as satisfactory. Correspondence would have to be in Russian or French; catalogues printed in Russian would be indispensable, with prices in roubles c.i.f. Russian port or on railway car, i.e., including sea freight and duty.

2. Through export merchant houses, Canadian, American or English. Business may be obtained in this way, the advantage to the manufacturer being that he takes no credit risks. The disadvantage on the other hand lies in the higher price, which is quoted to the Russian wholesaler, and the fact that the export house, as a rule, represents more than one manufacturer making the same articles, and is thus not particularly interested in any one manufacturer. This plan of action is only of interest to the manufacturer, who has no particular aim in increasing his Russian business and who wishes to avoid the risks and trouble which a more profitable but direct business would involve.

3. By appointing Russian firms, or available local British firms as agents. This is undoubtedly a much more satisfactory plan than the export house. First, because the prices to wholesalers will be less, and consequently the volume of business will be greater, provided always a solvent, energetic firm of agents be found. Agents are of two kinds:—

(*a*) Those who work on a commission basis, some of whom are ready to undertake a full or partial guarantee of accounts for a corresponding additional commission.

(*b*) Merchants doing a wholesale business who take the financial risk and quote such prices as they think necessary.

There are many such agents in Russia. Before the war, the majority of the more desirable already represented manufacturers and were not free. It is believed that now the difficulty of securing suitable representatives may be overcome, although a great many of the best agents, who were of German nationality, have left the country.

4. A resident representative of grouped industries co-related but not intercompetitive, or of industries making similar articles, which have agreed to pool orders for the Russian market. This plan of a trustworthy Canadian representative equipped

with a technical knowledge and business experience of the articles he is to introduce, offers perhaps the most satisfactory solution of the problem. While the initial expenditure for such a representative would be large, by being shared it would fall lightly on the individual firms interested. After the arrangements for agencies in the centres had been made, and were in working order, a periodical supervision at longer or shorter intervals should then suffice. There are two examples of this method in Russia which are working satisfactorily, one American and the other British. The former represents a combination of hardware and tool manufacturers for export, which included at the outset twenty firms, and has since been increased to sixty-two co-related firms. The organization is financed by a prominent New York banking house, to whom all payments by their agents in Russia are made. A representative visits annually the fifteen centres at which the combine maintain their agents, who are mainly merchant houses buying on open account and not on commission. The British concern referred to handles, in addition, general machinery, and maintains their local representatives, who are Russian-speaking Englishmen having a technical knowledge of engineering.

DISTRIBUTION OF FOREIGN IMPORTS.

The distribution of foreign imports into Russia is entirely in the hands of two or three classes of wholesale merchant houses, all of which are grouped in a few of the chief cities such as Petrograd, Moscow, Riga, Kieff, Odessa, Rostov-on-Don, etc Moscow is pre-eminent as a centre of this character, and it is hardly an exaggeration to say that nearly fifty per cent of Russian foreign imports are handled directly or indirectly through that point. The general character of the imports handled by Moscow are of a class which appeals to a peasant market, and are represented by the cheaper qualities as against the business transacted from Petrograd, where the trade is of high standard and where Government purchases and contracts are exclusively settled for the whole empire. In the first instance, there are then in these large cities wholesale merchant houses, which employ travellers who work the surrounding provinces. The orders as received are combined and transferred to the foreign manufacturers concerned, the merchants themselves carrying very little stock. Wholesale houses in the provinces are few in number and of relatively small account. The wholesale dealers referred to, sell direct to the provincial retailers. The selling firms in question belong to the class which offers exclusively the goods of the foreign manufacturers they represent.

Another class of wholesalers have no travellers, and rely upon catalogues; they have their regular clientele throughout the provinces, mainly retailers, who effect their purchases by correspondence or in person, when they visit the various centres.

A few other firms have their branch houses in different towns in Russia, which send out travellers in their respective district to deal directly with users, but these firms specialize as a rule in a few lines. All wholesalers do a large retail trade with users of goods, such as factories, railways, etc.

Travellers for the provinces carry ample collections of samples, together with catalogues. Their catalogues are of two kinds; some houses issue only a retail catalogue, and sell at these prices, less a certain discount; whereas others publish and issue a wholesale catalogue only at net prices to provincial dealers, these wholesale catalogues being restricted to the trade.

As regards foreign goods for Siberia, the trade is controlled largely by Moscow firms, who send out travellers to the main points only, if at all, and usually have one sub-agent or buyer stationed at Omsk, which is the chief centre for Western Siberia. The rapid development of Siberia, however, is leading to the establishment of independent local wholesale houses of undeniable financial strength which do both a wholesale and a retail trade, and deal directly with foreign manufacturers without intermediaries in Moscow; this is a factor to be duly noted and catered for.

The Far Eastern business, namely in the Trans-Baikal and the Amur region, is in the hands of a few firms with headquarters at Vladivostok. It is quite a specialized business, and not touched by the ordinary Russian houses. These firms do a large trade with their magnificent stores and well-organized wholesale departments, sending out travellers who cover the whole of the Far East. Two of the largest, Messrs. Kunst and Albers and Messrs. Tchurin & Co., have each a purchasing house in Moscow, and the former also a house in London. It is recommended that Canadian manufacturers on the grouped plan should be represented in Vladivostok.

CREDITS. CONDITIONS OF PAYMENT.

In Russian dealings the question of credits is of great importance and calls for careful investigation. The Russian wholesaler is compelled to allow his customer credit in practically all lines. The credit period varies, and may extend up to twelve months. A cash payment of say up to twenty-five or thirty per cent is the general rule. In most cases however the wholesaler is satisfied if his client will pay railway freight and expenses to destination, although he usually tries to insist on a c.o.d. payment to cover his own outlay for sea freight and duty. For this reason Canadian manufacturers should be prepared to grant liberal credits to dealers in order to do business, say for seventy-five per cent of the cost at factory. They should endeavour to sell f.o.b. Canadian or United States port, to which dealers will generally agree, the dealers paying freight, insurance, etc. For the balance in question it will be found that credit should be given for three, six, nine or twelve months, according to the article and the respective minimum. Thus the foreign manufacturer is asked to help to carry the trade, for the majority of the wholesale dealers have not sufficient capital to pay for their imports until the ultimate users of these goods, in the main the peasant consumer, is able to discharge his obligations to the retailer, which he can only do after the gathering of his crops. As has been seen, the German houses were assisted by the co-operation of the banks in meeting the situation. Careful investigation of the credit position of wholesalers is therefore of unusual importance, even in the case of the large buyers. In this connection, the position of Jewish firms should receive attention having regard to the special disabilities under which members of that race labour in many respects in Russia. Jewish firms, however, are to be found more in Western Russia at points like Odessa, Kiev, Warsaw etc., rather than in the interior of Russia.

It should be observed also that the commercial law in Russia is still in a formative stage; the recovery of debts is surrounded with difficulties, and procedure in the Russian courts, while just and sure, is slow, but a good deal is and may be effected by tactful pressure and compromise. An excellent bankruptcy Act has been framed and agreed upon, and will undoubtedly be very soon placed upon the statute-book. On the other hand, sales made on the plan of payment by instalments are to be considered safe, and are generally adopted in cases of transactions for machinery, etc., which remain the property of the vendor until the last cent has been paid.

The building up of an export trade is at best a slow process, and new-comers in a market like that of Russia will have to proceed warily and restrain their optimism. But there is no question that with ordinary caution and judgment it should be possible for them to make solid connections, and develop gradually a staple and profitable business in the Russian market in some of the very many lines of supplies which are indispensable to the Russian people.

X

APPENDICES

Certain additional information on various subjects of interest to Canadian trade and commerce has been assembled in the course of this inquiry with the assistance of Russian trade experts and from other sources. To this information and to the tables of statistics of Russian trade which are appended, the attention of interested persons is specially directed.

APPENDIX A.

RUSSIAN MARKET FOR HARDWARE SPECIALITIES.

Although there is a number of factories in Russia making hardware of all kinds, as well as many peasant industries, etc., producing hardware by handwork, the total Russian production is small compared with the demand, with the result that Russia and Siberia offer an almost unlimited field to foreign manufacturers, who have been supplying the country with roughly 75 per cent of its requirements.

The principal lines are as follows:—

BUILDERS' HARDWARE.

Of the heavier kinds, such as stoves, window and door hardware, etc., the bulk is manufactured in Russia, and there is consequently very little scope for the foreign manufacturer. The lighter sorts of builders' hardware, such as various fittings, hinges, locks, door checks, etc., have been largely supplied by Germany, although a considerable proportion of this class of goods is of American origin, such as Yale locks, special locks and door checks, the business having hitherto been mainly handled through German firms in Hamburg.

In the industrial district around Moscow there are some factories and many thousands of persons doing handwork and manufacturing, for instance, stoves, stove fittings, doors, as well as the heavier kinds of hinges and the more simple forms of locks, door bolts, etc., which make it difficult for foreign countries to compete successfully. It is probable, however, that Canadian builders' hardware, even of the heavier kinds, could be sold in Russia, provided prices be reasonable. During the last few years there has been a great improvement in Russian building methods, better fittings are being used, larger houses are being erected, and more money being put into them than formerly. Another point is that the Russian climate more nearly approaches the Canadian than that of the rest of Europe, and although there are many differences in the habits of the people of Russia and of North America, yet the result is that the requirements of Russia are often similar to the American. At the same time it should be borne in mind that Canadian builders' hardware of the heavier kinds is under a certain handicap in comparison with that from the continent of Europe, owing to the types and designs being different in many instances. In this connection windows might be mentioned. In Russia they invariably open inwards, i.e., of the casement type, being double, whereas in North America the majority of the windows are of the up and down sash type. There is therefore no demand in Russia for sash

locks, balances, pulleys, etc., what is required being a metal rod, flat on one side, extending from the bottom of the window half up, and there attached to a knob, with another similar rod attached to the knob extending to the top of the window, so that when the knob is turned the lower rod is pushed downwards into a socket fixed to the window ledge, and the upper rod is pushed upwards into another socket.

BATHROOM SUPPLIES.

To take another important line, bathrooms and closet supplies, the general tendency in Russia during the last few years has been for better and improved equipments, and in the best buildings these fittings are usually of the white enamelled type. A large trade may therefore be done, and so far this has been more or less in the hands of Germans, England and Sweden. A considerable quantity has also been produced in Russia itself, the prices obtained being on a high level. This class of hardware as a rule goes together with washing-stands, baths, plumbers' fittings, etc., and the dealer supplying the latter usually obtains the order for the baths and bathroom equipment. America has hitherto exported small quantities, but should be able to do a larger trade. It is interesting to note that one reason why Germany has been so successful in this line is that the Russian manufacturers of baths, plumbers' fittings, etc., have been of German nationality and origin, and have therefore naturally been inclined to obtain their equipment and fittings from Germany.

TOOLS AND CUTLERY.

It may be said that hitherto Germany has monopolized 80 per cent of the Russian import of these articles, owing mainly to the cheaper prices at which she has been able to sell. The manufacturers in the large German manufacturing districts of Remscheid and Solingen for instance have had a strong organization of travelling salesmen visiting Russia, and have furthermore published catalogues printed with all prices made out in roubles, delivered duty paid at frontier station or port, and usually there has been included a list of railway freights from such station or port to the principal towns in Russia and Siberia.

Amongst the various lines included in this section of hardware the following of importance are worthy of special mention:—

SAWS.

There are comparatively few saws manufactured in Russia itself, thus leaving the trade in this most important line almost completely open to foreign countries.

Hand saws, hacksaw blades and such like, have hitherto been almost exclusively supplied by Germany, but it is probable that Canada could do a large business therein and also in the better kinds of cross-cut saws, provided arrangements could be made for experts to demonstrate same and explain them to customers, especially to the lumber companies, who are large consumers of these kinds of saws. It may be objected that this would entail considerable expense, but it would be sufficient for manufacturers to get into touch with a few of the leading lumber and saw-mill concerns in the North Russian Caucasus, Ural and Siberian timber districts. If the saws were introduced to them with the help of experts, it should lay the foundation for future business, as some of these companies consume large quantities of these saws annually. It might be added that England does a good trade in cross-cut saws, some of their saws being popular in Russia.

MACHINE SAWS.

As regards machine saws, for woodwork, it should be mentioned that the American-made are superior in quality and design to anything produced in Europe, but that at the same time the prices are sometimes two and two-and-a-half times higher than

those of other countries. On the other hand the usual method of setting saws in the United States is to swage the teeth, instead of setting them at an angle (spring-set). Some firms have already done a good amount of missionary work in introducing American swaged saws, and a number of the mills have of late shown an acknowledged tendency to change all their saws for the swage type, many of them being prepared to pay the difference in the prices of saws. It should be added that the quality of steel of swage saws is much superior to that of spring-set saws. At the same time, however, the mills will have to be taught how to use these special saws, and what is more important still, how to use the special tools used for swaging the teeth. As it is, the mills are somewhat afraid to use the tools, not properly knowing their use.

From the foregoing it will be seen that in order to bring about the universal use in Russia and Siberia of American saws missionary work must be done, and when their use has been well shown and taught, their sale could be switched over to the dealers, who would then carry stocks, whereas it is impossible to persuade the ordinary Russian dealer to stock an article for which there is not at least a good demand.

As regards saws for metal cutting, there is very little to be done, at any rate through the dealers, as although there is a considerable number of circular and band saws used in Russia, machine-driven, the types and sizes are so various that hardly any can be stocked. It might be added that the demand at present is small, although there are indications of its growing.

HAMMERS, HATCHETS AND ANVILS.

The majority of the hammers, hatchets and anvils are manufactured in Russia, but a number are imported, many being supplied by America, i.e., those required for special purposes or of the finer grades. There is a fair opening in Russia for this line, but prices should be kept low to do a reasonable amount of business.

LEVELS, RULES, TAPE AND STEEL LINES.

The majority of levels, rules, tape and steel lines are supplied by Germany, but as they are also produced in North America, manufacturers should be able to do a good trade therein, the main reason for their non-success hitherto being the high prices demanded.

MEASURING TOOLS.

Measuring tools, such as calipers, micrometers, gauges, taps, etc., are handled in Russia both by hardware dealers as well as by machine tool dealers. Both kinds of dealers have been handling both the cheaper German measuring tools as well as the more expensive American. It may be said that the sales in American fine measuring tools are important, and that not much can be done to increase the turnover.

A number of wrenches and screw-drivers of American manufacture are sold in Russia, and are very popular, especially monkey wrenches, such as Coe's, Stillson's, bicycle wrenches, etc.

FILES AND RASPS.

There are two factories in Russia making files and rasps, i.e., the Putiloff in Petrograd and Thomas Firth, in Riga. A large number of files are also imported from abroad, and up till a few years ago the English files were considered the best on the Russian market. Not long ago the Americans started to sell files also, and owing to their excellent quality these files have now become very popular, the only trouble being that the American prices are high, even higher than the English. The result is that the majority of the American files sold are of the smaller sizes, the larger being bought either of Russian make or supplied by England, particularly the former.

VISES.

The heavier together with the plain hand and bench vises are made in Russia, but the cabinet-makers' vises as well as the fine vises of the smaller sizes are largely imported from such countries as can produce them at the cheapest prices. As regards vises for machine tools, most of these are received together with the machine tools themselves, and go direct to the consumer. At the same time the hardware dealers stock the more poplar sizes, and these are bought from the machine tool manufacturers, and as a rule are such as can be used on any make of machine tools.

CUTLERY.

Large quantities of cutlery are produced in Russia, and the imports from Germany have hitherto also been heavy. Cutlery of better quality is also supplied by Finland and Sweden, but the best of the dealers also carry stocks of the best English-manufactured cutlery, especially pocket knives, scissors, barbers' clippers and razors. In connection with the latter article it is interesting to note that the majority of hollow-ground razors sold are of British make, but are all ground in Germany, whence they are sent back to the United Kingdom. American and English safety razors are also very popular in Russia, but owing to the fact that the majority of the makers of standard safety razors charge such high prices, there is a number of cheap safety razors on the market, practically imitations of the well-known makes, and owing to their low prices these imitations sell well, doing much to lessen the sales of razors of better quality. The majority of such imitation safety razors are supplied to Russia by Germany.

SHELF GOODS.

Bolts, nuts, screws, nails, rivets, washers, horseshoe nails, etc., are made almost exclusively in Russia, but some screws are imported both from England and Germany.

It is of the first importance to note that after the war there is certain to be a great demand in Russia for all of the above articles, and such Canadian manufacturers as can ship will be able to obtain large orders, provided there is no great delay in shipment, and prices be quoted reasonably low. At the same time Russian consumers will be prepared to pay the difference between the price of the home-made and the foreign articles. This is due to the fact that the Russian manufacturers of these articles have to a great extent given up their manufacture for the purpose of making ammunition, in many instances going as far as scrapping their plants, and it will be some little time before these manufacturers will again be able to produce anything like sufficient quantities of these goods to meet the demand. This is indicated already by the fact that since the war started prices for screws, nails, etc., have increased from 30 per cent to 40 per cent in price.

ENAMELLED WARE, TINWARE, ETC.

The simpler kinds are to a large extent manufactured in Russia, but during the last ten years the finer grades have been getting more and more popular, together with aluminium ware for cooking purposes. Most of these have hitherto been imported from Germany.

It should be pointed out that the success of Germany in this line is due to the manufacturers showing themselves ready to adapt their goods to foreign requirements, and this has given them the advantage over the United Kingdom and the United States as far as Russia is concerned. Cooking utensils and the different kinds of enamelled ware, etc., are as a rule of entirely different styles in Russia to those customary in Canada and the United States, the principal reason being that in the latter country they are more usually adapted for use with gas stoves, the tendency being therefore to make them with small surface on the bottom, whereas this is

not the case in Russia, gas stoves being not yet much used. Canadian manufacturers will therefore have to be in a position to export ware of the styles required in Russia before they can hope to achieve good results.

HOUSE FURNISHING GOODS.

House furnishing goods, such as coffee grinders, food choppers, rat traps, etc., belong to those classes of articles in which there is a large business to be done by foreign manufacturers. Hitherto, besides Germany, Sweden has done an excellent trade whilst American meat cutters sell well. The opening in this line is wide, and to do business samples should be included in hardware sample collections, and the lowest possible prices quoted.

CABINET HARDWARE.

Cabinet hardware, such as desk and drawer knobs, etc., is made locally, with the result that there is practically no business for outside manufacturers to obtain.

LAMPS AND LANTERNS.

Many of the above are made locally, but large quantities of miners' lamps, hurricane lamps, gas burners and spirit lamps have hitherto been imported from Germany. There is a great future for these goods in Russia.

ABRASIVES.

Such articles as carborundum, corundum and emery wheels and stones have already been well introduced to such branches of industry as use them in Russia, and the sales in American-made abrasives are very large. This trade was well organized by the United States manufacturers before the war, while other firms will now take over the agencies of such manufacturers as were formerly represented by Germans. The sales will in this way be continued, as American-made goods have depended for their sale more upon their quality than upon the manufacturers' representatives.

SMALL TOOLS.

As regards small tools, such as milling cutters, twist drills, reamers, taps and tapping dies, chucks, arbors, tool holders, machine tool vices, calipers, micrometers, rulers and angles, etc., it should be said that there is not such a large distinction in Russia as there is in other countries between the hardware trade and machine tool trade as far as these tools are concerned.

Hitherto most of the small tools have been supplied by Germany. The designs, however, are practically all American, the German tools being for the most part copies. The principal reason for this is that the largest German houses handling American machine tools and small tools had branch offices in Russia, and whilst they were importing a large quantity of American tools proper, they at the same time established their own factories in Germany to make small tools, sending them into Russia to their branches and selling them in this country at practically the same prices as those made in the United States. They thereby obtained a greater profit on their sales, being able to produce the tools cheaper than in the United States. It was therefore to their own advantage to push the German-made tools rather than the American.

It should be pointed out, however, that the majority of the best makes of American small tools are very popular in Russia and are well known, especially the finer tools connected with machine tools. This success is mainly due to the fact that these tools are handled by machine tool dealers rather than the ordinary hardware dealers, the former selling direct to the consumers. That the Germans especially of late years have been able to do a large business therein is due largely to the fact

that the machine tool trade has been to a certain extent in the hands of the Russian branches of German firms, who, as explained above, eventually started their own factories for manufacturing these small tools.

It should be added that the English manufacturers do a fairly good business in twist drills and reamers, but outside of these lines they sell nothing of importance.

HARDWARE REQUIRED IN RUSSIA.

A prominent Moscow firm handling imported hardware and machine tools has compiled the two following suggestive lists of articles for which Russia offers a large immediate market and which are given in the catalogues of Canadian and United States manufacturers:—

1. Articles of North American manufacture which are known in Russia and for which a larger sale might be obtained through energetic representation:—

Parallel vices.
Rivet-furnaces.
Scissors for cutting metals.
Braces.
Drills.
Spring pincers.
Tube cutters "Barnes."
Hinge (joint) pliers, flat-jawed.
Gas tube pliers.
Bolt cutters.
Spoons for ladling lead.
"Armstrong" holders.
Automatical punches.
Polishing machines (lathes).
Grinding apparatus.
"Irwin" hand-drills.
Clark's centre-bits (cutters).
Tooth planes.
Wedges.
Oil-stones "Washita."
" "Arkansas."
Pumps "Worthington."
Knife-files.
Saws.
Planes.
Smoothing-planes.
Jack-planes.
Squares.
Screw-drivers.
Grinders.

2. Tools of North American manufacture which are not yet known in Russia, and for which large sales are possible if energetically introduced. The article in italics are those which should be particularly successful in competition with the goods of other countries:—

Locksmiths' and fitters' hammers.
Punching machines.
Drilling tools.
Screw-plates.
Smiths' vices.
Ventilators.
Pliers.
"Whitworth" screw stocks.
Nut-keys (spanners).
Tube cutters.
Soldering lamps.
Soldering tubes.
Reamers.
Axle-lathes.
Grinding machines.
Circular saws.
Saw-sets.
Clamps.
Nail pullers.
Punches.
Pipe wideners.
Pipe cutters.
Pumps "Allweiler."
Oil-cups and lubricators.
Ribbon steel.
Jacks.
Connecting screws.
Differential pulleys.
Rulling pulleys.
Ships' lamps.
Garden scissors.
Various locks.

APPENDIX B.

MACHINE TOOLS, SAW-MILLING MACHINERY AND SAWS.

MACHINE TOOLS.

The term "machine tools" is in Russia understood to mean metalworking machine tools, as is the practice in North America. At the same time the finer woodworking machinery is also included in the term.

It is of interest to state in the first place that machine tools are handled in Russia by a different group of dealers to those handling ordinary hardware, and there is a distinction in their methods of working, i.e., the machine tool dealers obtain their goods direct from the foreign manufacturer, and sell direct to the consumer, thereby avoiding intermediaries such as export houses or German (Hamburg) import and export firms. The machine tool trade demands special engineering knowledge (not in possession of the ordinary Russian hardware dealer) and closer following up of tools sold.

KINDS OF TOOLS REQUIRED.

Machine tools are used in Russia in very much the same manner as in other countries, the most important lines being shipbuilding, railway shops, locomotive and car building, agricultural machinery and implements, also arsenals and shell-making factories and for Diesel engine manufacturing and general shop work.

At the time of writing, nearly a year after the commencement of the European war, there is an exceptionally large demand for machine tools for making guns, firearms, ammunition, shrapnel shells, etc., the demand being specially for small sizes of plain and screw-cutting lathes (16-inch and 18-inch swing), plain and screw-cutting turrent lathes, sizes from $\frac{3}{8}$ to 2 inches, and a few of larger size, also hydraulic presses and fittings for same, such as accumulators, pumps, etc. There is very little demand for anything else, and the exceptionaly shortage in Russia for these machine tools is due to the fact that in Russia there are only two factories worth mentioning making machine tools, and their output is insignificant in comparison with the quantities required, especially at the present time. One of the factories in question being situated in the proximity of hostilities is practically unable to produce anything.

It should be stated that there has of late been a distinct movement in Russia to produce locally the simpler machine tools mentioned above, and this movement is before long sure to result in factories being started, the probabilities being that they will be situated in the Donetz field and the Ural mountains, which are the principal metallurgical centres of Russia. The erection of such factories will mean that a demand will arise for all kinds of machine tools necessary for the manufacturing of those already mentioned, and in this line Canadians might be able to do a large business by supplying the demand through the usual channels.

DESIGNS OF MACHINE TOOLS.

It should be stated that the Russian factories and dealers are better acquainted with German designs of machine tools than the American, owing to the larger business done therein by Germany. This has been largely due to the fact that such a large proportion of the machine tool dealers have been of German origin or nationality and to the terms granted by the German manufacturers. At the same time the best transatlantic makers are also well known. It is to be anticipated that as soon as the redistribution of agencies has taken place and the rate of exchange is

more normal, enabling Russian dealers to purchase stocks, these lines will be pushed. As regards the redistribution of agencies it should be remembered that they have been taken away from German firms owing to the latter having been compelled to stop business.

Furthermore, it should be pointed out that the German dealers in Russia have in most cases made their reputation on the merits of the respective makes of the machines they represented, so that the sale there of should continue undiminished, whilst it is to be pointed out that as with small tools the North American designs have been copied by German manufacturers, the factories of some of the latter being started by German firms who were originally simply dealers in machine and small tools imported from the United States.

OPENINGS FOR NEW BUSINESS.

It is further of importance to mention that whilst the American designs are very popular and suitable as a rule to the conditions in Russia, there are still a few designs as made by North American manufacturers which if supplied by them would in all probability find a ready sale. Reference is here made to such machine tools as could be installed in smaller mills and smaller concerns. Mention for example might be made of the European designs of turning lathes of all sizes, which in Europe are made with gap beds. In explanation it should be said that the gap in the bed of the lathe enables the user to turn long small diameter work, and to use the gap whenever he is called upon to turn or face large diameter work. These machine tools have hitherto been obtained from England and Germany. Again, most of the so-called engine lathes made in North America are screw-cutting, whereas there is a large demand for simple turning lathes without any screw turning mechanism. Similarly there is a demand for facing lathes, very few of which are made in North America.

DEMONSTRATIONS BY EXPERTS.

After the war it will be necessary for Canadian manufacturers to make special efforts to supply the demand for machine tools in Russia. Whilst the dealers will be capable of carrying the necessary stocks of machine tools in Russia and of making the sales, nevertheless in order to increase the sales the manufacturers should send out their travelling experts, not only to put up the machinery, but to demonstrate its working and also to teach its use to the Russian workmen. The factories in Russia have up till the present been in the habit of avoiding the use of some classes of American machine tools, for instance automatic tools, principally as they were afraid that the Russian workmen would not be able to make these machines work properly. It is only right that the workmen should first be shown how to tool properly automatics and get the maximum capacity out of them.

WOODWORKING MACHINE TOOLS.

Woodworking machine tools in Russia as stated above are considered to also belong to the machine tool line in general. The main uses for these articles are in saw-mills, shipbuilding, railway repair shops, agricultural implement and machinery making, furniture factories, veneer mills, cooperage factories, box factories, pattern shops, etc.

It may be said that the simpler kinds of woodworking machines are principally made in Russia, whilst the bulk of the saw-mill machinery has been supplied by Germany, Sweden, Finland and Russia. On the other hand, the joinery and other finer machine tools have been bought principally from Germany, with United States manufacturers also doing a small trade. The Russian railway repair shops have been using a lot of English and American manufactured machine tools of this type, at the same time purchasing wood planers of larger sizes mainly from Sweden.

As regards veneer mills, the machine tool trade for this line has been done principally by the United States, whereas the cooperage factories trade has been of German origin exclusively.

For the Canadian manufacturers of woodworking machine tools to attain success in Russia it is necessary that the Russian consumers be educated up to the more improved methods in vogue in the North American lumber trade, especially the up-to-date methods of swaging and fitting saws, and also fitting knives for planers.

As far as the saw-mill, box factory and lumber resawing mill equipment is concerned, the generally adopted practice of North American factories and mills is to use band saws, instead of gang and circular, the latter being universally adopted in Europe, and although during the past ten years much has been done in Russia to introduce North American band saws, and considerable success has been attained, there is considerable missionery work still left to do.

From the foregoing it will be gathered that the best opportunities for selling North American woodworking machine tools are in the joinery and other finer woodworking lines, veneer mills, pattern shops, etc., the main requirement being that the consumer be educated. As regards the saw-mill trade it is now an accomplished fact that the first North American complete band saw-mill is running, which should revolutionize the saw-mill trade in Russia, and should create a great demand for band saw-mill equipment, owing to the fact that the methods used in North America for making lumber or so much superior to anything in Europe.

SELLING CONDITIONS OF MACHINE TOOLS.

With regard to the selling conditions of machine tools, it is almost exclusively the rule in Russia that the dealer has to take all the risks, financially and otherwise, i.e., he purchases the machine from the manufacturer, and sells same to the Russian factory or consumer. Also whenever the dealer sells a new machine he has to take all the responsibility of erection, working and teaching the workmen how to operate. He is further obliged to guarantee a certain capacity for each machine he sells. Again, owing to the credit system prevalent in Russia, the dealer is obliged to supply on credit usually on open account. In some cases he receives a deposit of one-third of the selling price, this being the maximum, such selling price of course including all costs of transportation, duty, etc. (which often amount to more than the stated one-third), and it is usually agreed between the contracing parties that the remaining two-thirds are payable inside thirty days from date of erection and acceptance of the machinery, reference here being made more especially to North American machine tools. It should be pointed out, however, that this does not apply to the Government works, as they never stipulate any particular date of payment in their contracts in ordinary peace times. In practice as regards private concerns, payment is very seldom actually made before three months from delivery of goods, and six to nine months is by no means exceptional. Furthermore buyers, although the contrary has been stipulated, always try to avoid paying cash, offering to give notes or acceptance at six months, as the banks discount acceptances up to and including six months, and these usually have to be taken by the dealer.

German machine tools have been sold so successfully mainly owing to the fact that the manufacturers have always allowed their dealers considerable credit, and these dealers have thus always been willing to take acceptances in payment, whilst owing to the long credit granted by the manufacturer, it has often occurred that the dealer has been able to collect his money from the Russian consumer before it was actually due to the German manufacturer.

United States manufacturers, on the other hand, have hitherto been very conservative in regard to granting credits, and this has to a great extent handicapped their sales in competition with German machine tools. Canadian manufactuers should study this question of credit very closely, as a relaxation will not only mean an increase

in sales on the one hand, but also make it a very fair proposition, as speaking generally the Russian dealer is [illegible] dealer selling North American [illegible] take the greater financial risk by being compelled to give [illegible] as well as having to wait so much longer for his money.

PACKING.

As regards machine tools it is suggested that the packing be sufficiently heavy not only for ocean transportation, but also for the Russian railways, where the freight as a rule is handled rather carelessly, and at present there are few cranes and other loading devices in use. It thus happens often that cases which have gone from the manufacturers' factories as far as unloading port undamaged have arrived at the consumers' warehouse smashed and broken, or badly damaged, the contents in many instances also suffering.

It is especially recommended that the machines be well braced inside to keep them tight with heavy planks on the one hand and secondly that the machines be sufficiently knocked down.

Also it should be understood the heavy smooth castings, especially steel castings, heads and cylinders of hydraulic presses and similar material require no packing whatever, and may be shipped loose.

Parts of machine [illegible] should always possible be well packed in sawdust, and all non-painted parts of machinery and tools should be covered with anti-rust compound of a thick nature.

Furthermore, the smaller parts and fittings of machine tools should be shipped together with the machine and be placed in a small box, the latter being well packed with sawdust and then placed inside the case containing the whole machine.

SAW-MILLING MACHINERY.

There is apparently a very promising field in Russia for trade in appliances and machinery necessary for the proper development of the great timber resources of the country, and also for the various local woodworking industries. There should, for instance, be good openings for North American logging locomotives, cableways, stationary engines, tractors, hoisting cranes, and for machinery for saw-milling, cutting shingles, and for the various [illegible] machinery for logging and saw-milling has been supplied principally by Germany, Sweden, Finland and by Russia itself.

RUSSIAN LOGGING AND SAWING METHODS.

Generally speaking the methods employed in making use of the great resources of Russia in standing timber, are antiquated and uneconomical. It has been estimated, that if any of the [illegible] saw-milling the vast timber tracts between the Volga river and [illegible] could not compete with their present logging and sawing methods to ship only their splendid timber abroad, they could do so only at a considerable loss. If such timber can be used at all, the use is usually restricted to selling it for conversion into charcoal for blast furnaces. There are large stretches of country in Russia and Siberia covered with timber, which is merely wasted. The natural forest resources would seem to afford the only reasonable opportunities existing for any development of the land. The owners of such country would be glad to work it but under present methods, they would only suffer losses. It would seem probable, however, that if American methods could be introduced, it might be possible to export profitably the timber by various rivers and sea routes.

It is the ordinary practice to fell the trees by hand and haul the logs by horse power, a great number of horses having to be used and also a large amount of track

equipment, while numbers of men are also needed in the work. The saw-mills are said to waste about 45 per cent of the material through bad cutting. Instead of sawing with one saw blade at a time, as by the North American method, one cut being made each time but made rapidly and with the man at the machine being able to see properly and adjust his work, the method is to use a long frame reciprocating saw, with a number of blades hung and sawing slowly, the result being that proper adjustments are difficult, and special complications occur through knots and twists and uneven cutting, making it impossible to effect economical sawing of the timber and to get the maximum out of each log.

THE ADOPTION OF MORE PROFITABLE PRACTICES.

The forests in the Ural mountains are largely owned by companies operating iron and platinum mines and rolling mills and other factories, the Russian Government also being a large owner of these mountainous tracks. To exploit such vast timber resources it would seem to be necessary that the owners should be shown how by adoption of Canadian methods and machinery an otherwise unprofitable cutting of their timber could be made profitable.

The first North American band-saw outfit in Russia was recently completed at Tsaritzin, on the Volga river, and is now in such successful operation that much attention has been attracted to it. This may result in the complete revolutionizing of the Russian saw-mill industry. With one such example already in existence, it becomes easier to promote Canadian methods as regards every feature of the industry.

PRELIMINARY PROPAGANDA REQUIRED.

Particulars relative to the kind of saws used by lumber companies in Russia will be found under the head of "hardware specialties," in Appendix A. It will be noted that in order to bring about the general use of North American saw-milling outfits and woodworking machinery in Russia and Siberia, it would be necessary that a campaign of education be conducted amongst the owners of large timber properties. If a few important outfits, however, can be installed they should serve as object lessons and thus create a demand. Until such demand can be created, it is useless to except Russian dealers to keep such goods in stock without liberal assistance from the manufacturers. The Russian dealers are not likely to be very interested in North American saw-milling outfits until they discover that owners of timber properties are interested in them and wish to buy them. After such a result is accomplished, intermediary firms will be anxious to handle such lines for Canadian manufacturers.

FOREST RESOURCES OF THE RUSSIAN EMPIRE.

Concerning the forest resources of the Russian Empire, it may be mentioned that 39 per cent of the area of the country is estimated to be under forest. In European Russia the forests cover an area of 474,000,000 acres, in Finland 50,500,000 acres, in Poland 6,700,000 acres, and in the Caucasus 18,600,000 acres, a total of 549,800,000 acres, exclusive of Siberia. In the Ural provinces, forests cover 70 per cent of the area, in the northern provinces 68 per cent, and in the four lake provinces 57 per cent. It is estimated that in Western Siberia alone there are 465,000,000 acres of virgin forest, and Eastern Siberia, while not so richly endowed, has sufficient timber to supply the world's demands for years to come.

The government owns 285,598,941 acres of forest land in European Russia, 12,826,387 in the Caucasus, 380,519,135 acres in Asiatic Russia and 288,742,000 acres in the Amur region, a total of 947,686,763 acres. About 23 per cent of the forest land belongs to landed proprietors and 9 per cent to the peasantry

SAWS.

As practically no saws are manufactured in Russia, the latter is obliged to import all required, and the article being one in large demand, there is a favourable opportunity for enterprising manufacturers to place their goods on the market.

Up to the war Russia received her supplies of saws approximately as follows:—

40 per cent from Germany.
25 per cent from France.
20 per cent from England.
10 per cent from United States.
5 per cent from other countries.

Germany had the preference owing to her granting longer credits, cheaper prices, and to her showing greater readiness to manufacture and assemble for Russian needs and requirements. Furthermore, Germany and France have worked more directly, i.e., manufacturers have sent out representatives to the large towns, thereby selling direct to wholesale dealers who are principally located in Moscow. England has preferred to sell by correspondence or through English representatives. The United States manufacturers have up till now sold almost exclusively through Hamburg import merchants.

OPENING FOR CANADA.

It will thus be seen that good business could be done by enterprising Canadian saw manufacturers through sending out a travelling representative to Moscow, Petrograd, Kieff, and Odessa to push this article in conjunction with other hardware. The question of speaking Russian would present no difficulties, although it would be useful for the representative to have a knowledge of German.

It would be necessary to give credit, say, up to six or nine months.

KIND OF SAWS IN DEMAND.

The saws mostly in demand in Russia are as follows: Circular and bandsaws (ribbon-saws), machine driven for sawing wood, with prices about rbs. 9.10 for circular saw 20-inch diameter, and rbs. 0.17 cops. per foot for bandsaws 1-inch broad.

Circular and band saws for sawing metals are also required. Prices are as follows: Rbs. 14.80 for 20-inch diameter 3m/m thick, and rbs. 0.48 per foot for bandsaws 40m/m broad and 9m/m thick.

A market is also present for curved saws (4 feet long, rbs. 1.40), and hand saws, ordinary (10-inch broad, 5¼ feet long, rbs. 4.35 for best quality, rbs. 4 for quality 1).

There is also a large demand, which up till now has been supplied exclusively by Germany and France, for: Potato-cutting saws, used to cut or saw potatoes for the making of vodka, starch, etc. Some thirty or forty of these are fixed to a revolving drum worked by a motor.

The usual saw used for this purpose (mainly starchmaking) is 13 m/m broad, and 29 c/m long, price rbs. 6 per 100.

All of the above prices are retail, warehouse Moscow, duty paid.

It may be added that the wholesale dealers sell and stock all kinds of saws, both hand and machine driven, so that the number of dealers to be visited is fairly limited.

APPENDIX C.

BINDER TWINE.

There is an opening for binder twine in Russia and Siberia, as so far Russian manufacturers have been unable to prepare a suitable article. Practically the only countries from which Russia imports binder twine are the United States and the United Kingdom, in the proportions of about 90 per cent and 10 per cent respectively.

It should first be pointed out that about 65 per cent of the binders sold in Russia are supplied by a large American company who, having their own twine mills, as a rule sell twine to those dealers and agents who handle their binders. The remaining 35 per cent of the binders are received from foreign manufacturers who do not make twine, but for the convenience of their customers some of these companies also sell twine, which they buy from manufacturers of this article.

A few English manufacturers and one or two United States companies, knowing the position, usually send a representative to Russia for a short trip of a month or so every year to offer their twine to large dealers handling binders made by manufacturers who have no twine mills. Although excellent business is done in this way, a large proportion of the market is untouched by these firms.

The business should be worked as follows:—

SUGGESTIONS FOR DEVELOPING BUSINESS.

Firstly, a travelling agent should be secured, who not only speaks Russian fluently, but has had some experience of the harvesting machine business in Russia. Such a man should be paid a small salary, a moderate allowance for travelling expenses, and commission. A competent man with good twine to offer at a fair price, should readily sell considerable quantities, as there are not only the large dealers to supply, but also the numerous estates which abound in Russia.

It is generally understood that the difference between the cost price and the price at which twine is sold to Russian dealers is comparatively speaking very high, and that prices have not yet been cut to any extent. There are still, therefore, excellent openings for twine manufacturers. It would be useless, however, to send out a representative from the factory, speaking only English, as he would be ignorant of the Russian market, and secondly, he could only visit the large towns, which are by no means centres for twine, as the article should be sold direct to the provincial dealers. Similarly a large import house or ordinary commission agents in the large towns would be of little avail. What is required is a travelling agent, preferably a former traveller in Russia for one of the harvesting machine manufacturers. The cost of sending out such a man would not be a large item in comparison with the high margin of profit securable and the medium of the binder manufacturers would be avoided and their profit which is by no means small would be obtained by the twine manufacturer. This margin should far more than cover the expense of an agent, apart from the consideration that a competent man could secure three or four times the amount of business.

Binder twines sold in Russia are manilla hemp and sisal, the price to agents and dealers being about 7 roubles (£0 approximately), per pood (36 pounds English) f.o.b. car Baltic port. The price varies from year to year according to the price of the raw material. Credit must be given, the usual terms being about 30 per cent c.o.d. (which is collected by the railway authorities, who hand the money over to the forwarding agents at the port), and the balance July, August, September, according to the time of the harvest and depending on the degree of latitude. Binder twine is admitted into Russia free of duty.

APPENDIX D.

RUSSIAN IMPORTS FROM GERMANY.

Imports into Russia. Years 1912 and 1913.

(Pood = 36 lbs.; Rouble = 51·5 cents.)

Articles.	Total Imports into Russia.	Imports from countries other than Germany.	Imports from Germany, but could be manufactured in Russia.	Imports from Germany, but could be partly manufactured in Russia and partly imported from other countries.	Imports from Germany, but could be imported from other countries.	Percentage of Imports into Russia from Germany.	Percentage of Imports into Russia from countries other than Germany.	Value of Imports into Russia from Germany.
I.—Rural Economy:—	Poods.	Poods.	Poods.	Poods.	Poods.	p. c.	p. c.	Roubles.
A.—Machines and Implements—								
1. Ploughs	1,041,500	23,300	918,200			88	12	3,585,800
2. Harrows	269,000	183,000	86,000			32	68	448,500
3. Machines for strewing powdered fertilizers	30,700	3,400		27,300		89	11	159,000
4. Hammers	284,000	192,000		92,000		32	68	505,200
5. Winnowing machines and sorting machines	124,000	76,000		48,000		39	61	329,000
6. Locomobiles for complicated grinding, &c	942,200	588,700		353,500		38	62	2,528,000
7. Other agricultural machines	1,567,800	615,800		952,000		61	39	3,547,100
8. Machines for grinding flour	133,600	35,600		98,000		73	27	610,200
9. Sheep shears	4,000	300		3,700		93	7	32,200
B.—Manures and Fertilizers—								
1. Super-phosphates	11,491,000	3,053,000	8,438,000			72	8	3,375,200
2. Ground slags (Thomas')	11,264,000	5,150,500	6,113,500			54	46	2,139,700
3. Chile saltpetre	2,900,600	658,900			2,241,700	77	23	3,926,200
4. Nitric lime (Norwegian saltpetre)	139,400	99,300		40,100		29	71	36,300
5. Natural phosphates (not ground)	3,083,500	1,151,000		1,932,500		62	38	307,600
6. Raw bone, ground phosphates	30,300	1,000	29,300			96	4	14,600
7. Bone, treated with sulphuric acid and fertilizing composures	41,500	11,900	29,600			71	29	12,600
II.—Rubber Goods:—								
1. Raw caoutchouc, gutta-percha and caoutchouc waste	674,600	492,900			181,700	27	73	10,021,800
2. Soft Rubber in sheets, cakes, etc.	9,400	1,600	7,800			83	17	357,600
3. Elastic and cloth interwoven, with rubber	4,800	1,000		3,800		79	21	379,200
4. Soft rubber goods without other materials	12,200	1,400	10,800			89	11	424,100

5. Soft rubber goods with other materials.	11,100	2,800	8,300			75	25	338,100
6. Gum, resin, smelted amber, etc.,	388,100	166,400			221,700	57	43	1,698,400
III.—Cast iron, iron steel and products of these metals.								
1. Pig iron and scrap iron	2,852,000	1,243,000		1,609,000		56	44	845,100
2. Cast iron, manganestic, chromic	1,271,600	508,400		763,300		60	40	1,200,150
3. Assorted iron, flat bar iron	1,264,400	300,100		964,300		76	24	1,211,700
4. Iron plate	1,167,000	301,600		865,400		74	26	1,[illegible]
5. Assorted steel, bar steel	1,349,400	681,900		667,500		49	51	[illegible]
6. Steel plating	287,000	122,000		165,000		57	43	[illegible]
7. Iron rails	113,900	5,600		108,300		95	5	[illegible]
8. Steel rails	49,600	28,100		21,500		43	57	[illegible]
9. Wire, thickness 0·5 1 millimetre	36,200	3,800	32,400			89	11	241,700
10. Tin	597,800	80,900		576,900		86	14	1,139,000
11. Iron castings, unhammered iron	255,700	98,700		157,000		61	39	516,800
12. Cast iron products	335,700	80,800		254 900		76	24	2,401,500
13. Forged iron and steel products	249,200	46,700		202,500		81	19	978,600
14. Various hand tools	503,800	144,300		359,500		70	30	2,959,900
15. Hammered nails	9,900	1,800	8,100			81	19	17,400
16. Pipes, joints, parts, weight over five lbs.	408,100	86,700		321,400		79	21	1,783,700
17. Pipes, parts enamelled and painted	190,900	65,900		125,000		66	35	908,300
18. Enamelled iron kitchen utensils	2,900	700		2,200		76	24	8,800
19. Sundry tin products	538,700	111,200		427,500		79	21	4,505,300
20. Sewing needles, n.o.s	1,300	100		1,200		95	5	123,400
21. Sail needles, knitting needles, knitting hooks	1,700	100		1,600		98	2	128,000
22. Knives and forks	1,036	12		1,024		99	1	211,000
23. Sundry cutlery	22,000	6,300		15,700		71	29	1,008,700
24. Pad-locks, locks (including brass locks)	80,700	7,400		73,300		91	9	1,067,000
25. Scales under 3 poods in weight	50,100	11,200	38,900			79	21	286,000
V.—Chemists' and druggists' goods:—								
1. Borax products and crude borax	248,900	39,800		309,100		84	16	106,500
2. Refined borax, in crystals	5,600	500		5,100		91	9	14,100
3. Blubber, fish fats, (Crude)	70,300	11,700		58,600		83	17	186,800
4. Fish fats, (refined)	31,800	12,000		19,800		62	38	182,400
5. Castor Oil Seeds	485,600	226,700	258,900			53	47	286,000
6. Castor Oil	5,400	1,900		3,500		65	35	19,400
7. Vaseline (excluding refined)	19,800	5,500		14,300		72	28	48,500
8. Camphor (refined)	9,300	1,700		7,600		82	18	275,400
9. Amber, balsam, incense, fragrant tars	5,400	2,100			3,300	61	39	109,600
10. Quinine and quinine salts	3,900	100			3,800	97	3	261,500
11. Arsenic (raw state)	20,600	6,800		13,800		67	33	61,600
12. Citric Acid	15,100	4,700		10,400		69	31	268,200
13. Carbolic acid, in crystals and fluid	14,400	4,000		10,300		72	28	62,100
14. Corrosive sublimate, calomel	2,600	800		1,800		82	18	41,500

IMPORTS into Russia, Years 1912 and 1913.—*Continued.*

Articles.	Total Imports into Russia.	Imports from countries other than Germany.	Imports from Germany but could be manufactured in Russia.	Imports from Germany but could be partly manufactured in Russia and partly imported from other countries.	Imports from Germany but could be imported from other countries.	Percentage of Imports into Russia from Germany.	Percentage of Imports into Russia from countries other than Germany.	Value of Imports into Russia from Germany.
V.—Chemists' and druggists' goods—	Poods.	Poods.	Poods.	Poods.	Poods.	p. c.	p. c.	Roubles.
15. Salammoniac, ammonia, nitric acid	40,700	25,100		15,400		38	62	95,500
16. Potassium chlorate, KCLD 3	137,800	76,300		61,500		45	55	330,200
17. Divers chemical and pharmaceutical products	563,100	104,800		458,300		90	10	5,541,300
18. Etherial and sweet smelling oils, (not containing spirit)	13,700	3,200		10,500		77	23	859,700
19. Cosmetic Soaps	9,600	2,400		7,200		25	25	226,400
20. Perfumery goods, containing spirits,, scents, elixirs	10,400	3,700		6,700		64	36	853,500
21. Salicylic acid	8,000	500		7,500		94	6	225,500
22. Chloral, Chloroform	1,900	100		1,800		95	5	91,400
23. Iodine, brome	6,900	100		6,800		99	1	143,000
24. Potassium, containing iodine and natrium	4,300	100		4,200		98	2	180,200
25. Compound medicines, excepting plasters	26,100	6,500		19,600		75	25	1,608,600
26. Tanning bark (not ground)	1,119,700	394,600		725,100		66	34	485,200
27. Tanning extracts, sundry (excluding sumach)	809,400	363,800		443,600		55	45	1,119,900
28. Indigo (excepting extract)	40,000	13,100			26,900	67	33	1,348,100
29. Dye-woods, pounded and powdered	18,000	1,400		16,600		92	8	26,900
30. Baryta, sulphuric acid (artificially prepared	2,900	500		2,400		83	17	8,600
31. Ultra-marine, natural, artificial and green	3,900	600		3,300		85	15	59,890
32. Prussian blue and Paris dark blue	5,100	900		4,200		82	18	83,300
33. White-zinc	172,600	96,900		75,700		44	56	289,500
34. White lead	74,100	44,300		29,800		40	60	107 200

35. Red lead	43,000	15,100		27,900		65	35	87,500
39. Other colours and coloring substances	56,900	7,200		49,700		87	13	667,000
VI.—Copper and mixed products:—								
1. Sheet copper, rod copper, flat copper	38,600	6,800		31,800		87	13	402,500
2. Products of copper and other base metals without embossments and engravings, exceeding 5 lbs.	52,700	9,500		43,200		82	18	1,054,600
3. Products of copper and other base metals without embossments, weights under 5 lbs.	258,500	26,100		232,400		90	7	6,562,900
4. Copper products with embossments	13,600	1,400		12,200		89	11	738,100
5. Sundry fire making machines and fire lighters	430	60		370		86	14	23,200
VII.—Textile and manufactured goods:								
1. Jute and cloth sacks	15,600	5,300	10,300			66	34	121,400
2. Woolen and half woolen textures and cloths	38,500	10,500		28,000		73	27	834,300
3. Machine belts of camel's hair	41,300	12,600	28,700			69	31	1,032,400
4. Antiseptic and hygroscopic cotton wool	40,900	3,300	37,600			92	7	679,700
5. Knitted goods	38,600	2,500		36,100		94	6	3,389,400
6. Linen, velvet, plush, plush ribbons	19,600	2,600		17,000		87	13	2,047,300
7. Raw silks	92,200	43,600		48,600		53	47	12,601,600
8. Artificial silks (not dyed)	8,000	1,900		6,100		76	24	1,054,200
9. Velvet and plush, velvet and plush ribbons	1,700	200		1,500		88	12	648,400
VIII.—Chemical products:—								
1. Tar, pitch, n.o.s.	2,318,400	698,200	1,620,200			70	30	762,500
2. Liquid tar (excepting such imported free of duty), asphalt and putty	994,200	212,300	781,900			78	22	708,900
3. Spermaceti (refined)	2,400	400		2,000		81	19	21,900
4. Fossil Wax (refined)	39,000	9,200	29,800			77	23	238,200
5. Parafine	401,300	181,900		219,400		55	45	771,900
6. Stearine	34,600	11,900		22,700		66	34	163,700
7. Carbolic acid	65,900	36,100		29,800		45	55	22,700
8. Turpentine or turpentine oil	63,100	31,800	31,300			49	51	188,300
9. Turpentine	31,700	14,800	16,900			53	47	101,200
10. Sulphuric pyrites, ferruginus pyrites	8,871,700	6,227,300	2,644,300			30	70	397,400
11. Sulphur (crude)	1,332,900	781,900			551,000	41	59	440,300
12. Sulphuric acid (oil of vitrol)	168,300	14,100		154,200		91	9	108,000
13. Glaubros salts	164,500	33,800		130,700		79	21	71,900
14. White copperas, chlorous zinc.	19,300	3,600		15,700		81	19	90,200

IMPORTS into Russia, Years 1912 and 1913.—*Continued.*

Articles.	Total Imports into Russia.	Imports from countries other than Germany.	Imports from Germany, but could be manufactured in Russia.	Imports from Germany but could be partly manufactured in Russia and partly imported from other countries.	Imports from Germany, but could be imported from other countries.	Percentage of Imports into Russia from Germany.	Percentage of Imports into Russia from countries other than Germany.	Value of Imports into Russia from Germany.
	Poods.	Poods.	Poods.	Poods.	Poods.	p. c.	p. c.	Roubles.
VIII. Chemical products *Continued* :—								
15. Blue copperas (excepting such not containing water)	42,700	23,500		19,200		45	55	69,300
16. Sulphate of magnesia, chloric calcium	[illegible]	[illegible]			66,400	77	23	68,900
17. Sulphurous carbon	27,900	10,400		[illegible]		[illegible]	37	35,000
18. Potash, carbonic kali (kali carbonate)	29,300	4,400		21,900		85	15	75,000
19. Liquid carbonic acid and other liquid gases in metal cylinders	6,500	1,400		[illegible]		[illegible]	22	110,300
20. Natrium potassium [illegible]	[illegible]	[illegible]	[illegible]			[illegible]	34	15,000
21. Calcium carbonate (precipitated)	13,700	800		12,900		94	6	44,800
22. Carbonate of bary to crude, and ditto arrificially prepared	2,600	300		2,300		89	11	10,400
23. Benzol (crude)	190,100	32,700	[illegible]			83	17	236,900
24. Naphtaline [illegible]	[illegible]	[illegible]		114,500		65	35	98,300
25. Chlorous magnesium (crude)	318,800	[illegible]		291,900		92	8	347,700
26. Chlorous potassium, [illegible] of potash	289,200	[illegible]		281,500		[illegible]	2	308,300
27. Alizarine oil	2,000	[illegible]		[illegible]		[illegible]	[illegible]	24,200
28. Red prussate of potash	2,000	[illegible]		[illegible]		[illegible]	35	25,500
29. Cyanide of potassium	1,600				1,600	[illegible]		22,200
30. Aniline	17,200	1,600		[illegible]		91	9	121,200
31. Aniline salts	29,400	10,000			19,400	66	34	146,700
32. Nitro-benzol and nitro-naphtaline	18,700	1,300		17,400		93	7	110,800
33. Alizarine, alizarine varnishes	94,400	3,000		91,400		97	3	4,941,500
34. Natron (crude)	26,200	7,000	19,200			73	27	30,100
IX. Jewelry, ornaments :—								
1. Sundry tapes, cords, ribbons	9,300	700		8,400		90	10	860,500

28. Red prussate of potash	2,000	700		1,300	65	35		25,500
29. Cyanide of potassium	1,600				1,600	100		22,700
30. Aniline	17,200	1,600		15,600		91	9	121,200
31. Aniline salts	29,400	10,000			19,400	66	34	116,700
32. Nitro-benzol and nitro-naphtaline	18,700	1,300		17,400		93	7	110,800
33. Alizarine, alizarine varnishes	94,400	3,000		91,400		97	3	1,941,500
34. Natron (crude)	26,200	7,000	19,200			73	27	50,100
IX.—Jewelry, ornaments :—								
1. Sundry types, cords, ribbons	9,300	700		8,300		90	10	860,500

2. Toilet accessories with cheap metal fittings	36,800	5,200		31,600		86	14	2,765,300
3. Buttons, wooden, bone, etc	8,000	1,300				84	16	508,400
X. Electro-technical								
1. Electric light lamps		1,400		11,200		90	10	1,127,300
2. Electrical apparatus		4,400		26,800		86	14	567,200
3.		1,100		29,600		96	4	1,311,700
4.		400		14,400		97	3	171,500
5.				173,500		91	9	4,930,000
		42,300				86	14	
		100				98	2	
XI.								
1.		155,400		270,100		64	36	1,597,300
2. Sundry iron and steel boiler manufactures		48,300				83	17	1,567,400
3.		400				83	17	28,100
4. Pumps and hand fire engines	664,300	75,000		589,300		89	11	
5. Steam engines	366,200	87,400		278,800		76	24	
6. Locomotives, steam carriages, railway hand cars	64,400	3,800		60,600		94	6	637,600
7. Complete machinery and apparatus and separate parts	4,339,500	885,000		3,454,500		80	20	25,123,200
8. Machinery parts, fittings, of cast iron and steel	1,387,000	424,000		963,000		69	31	10,460,500
9. Turning lathes	52,600	600		52,000		99	1	360,200
10. Lathes for metal work	929,800	212,000		717,800		77	23	8,380,100
11. Woodcutting lathes	121,800	23,000		98,000		81	19	1,068,800
12. Knitting machines, embroidery machines	7,200	100		7,100		99	1	119,200
13. Paper making machinery	22,700	200		22,500		99	1	226,900
14. Typewriting machines	23,100	8,300		14,800		64	36	905,300
XIV.—Means of locomotion :—								
1. Bicycles	18,900	2,900		16,000		85	15	2,447,500
	Poods.	Poods.		Poods.				
2. Sundry bicycle parts	7,700	1,900		5,800		75	25	473,000
	No.	No.		No.				

IMPORTS into Russia, Years 1912 and 1913.—*Continued.*

Articles.	Total Imports into Russia.	Import from countries other than Germany.	Imports from Germany, but could be manufactured in Russia.	Imports from Germany, but could be partly manufactured in Russia and partly imported from other countries.	Imports from Germany, but could be imported from other countries.	Percentage of Imports into Russia from Germany.	Percentage of Imports into Russia from countries other than Germany.	Value of Imports into Russia from Germany.
	No.	No.	Poods.	No.	Poods.	%	%	Roubles.
XV.—Leather industry:—								
1. Leather (not curried)	338,300	151,400		186,900		55	45	1,315,100
2. Leather pairings	423,300	11,300		412,000		97	3	2,480,400
3. Salted leather (not dried)	2,432,300	479,500		1,912,800		80	20	11,475,900
4. Dressed leathers, small, cropleathers, tanned leather, tanned straps, thongs	125,500	34,600		90,900		72	28	6,097,500
5. Dressed leathers, large, without embossments, dyed and natural leather.	144,400	66,300		78,100		54	46	3,361,400
6. Driving machine belts, unsewn	80,500	31,900		48,600		60	40	1,459,800
7. " " sewn	8,700	1,800	6,900			79	21	249,500
8. Hides, chevreau, not dressed	40,100	7,700		32,400		81	19	1,515,300
9. Patent leathers, large	54,600	4,300		50,300		92	8	3,825,200
10. Kid skins, chevreau, shagreen, sun dry patent and varnished leathers	43,100	8,300		34,800		81	19	2,966,600
11. Hand bags, trunks, bags, etc	5,200	780		4,420		85	15	539,200
12. Whips, buckets and other low grade leather goods	4,800	1,200	3,600			75	25	135,200
XVII.—Boots :—								
1. Ladies' shoeware of silk stuffs	1,400	600		800		57	43	201,900
2. Shoes, boots, slippers, etc	13,300	6,000		7,300		55	45	1,124,600
3. Blacking	58,600	10,600		48,000		82	18	597,900
XVIII.—Musical instruments:—	No.	No.		No.				
1. Organs (hand), harps, harmoniums	1,630	240		1,390		85	15	299,100
2. Pianos	4,630	630		4,000		87	13	1,796,500
3. Grand pianos	870	50		820		94	6	691,700

	Poods.	Poods.		Poods.				
4. Gramophones and musical instruments of that class	15,600	2,200		13,400		86	14	394,200
5. Gramophone records	2,800	100		2,700		96	4	86,300
6. Other musical instruments and accessories	102,300	10,200		92,100		90	10	2,822,400
XX.—Cooper's, carpenter's and turner's products :—								
1. Riveted goods	94,400	46,800	47,600			50	50	71,600
2. Cooper's goods	50,000	17,000	33,000			66	34	52,300
3. Carpenter's and turner's goods of wood	137,300	52,800		84,500		60	40	338,100
XXI.—Sundry goods :—								
1. Articles made of bristles, brushes, etc.	6,100	2,100		4,000		66	34	94,400
2. Celluloid	75,900	600		75,300		98	2	1,662,300
3. Woodwork, oilcloth	5,800	1,100		4,700		81	19	166,100
4. Lamp burners, wick and wick reservoirs	12,000	1,100		10,900		91	9	313,500
5. Children's toys	6,300	400		5,900		94	6	376,600

APPENDIX E.

RUSSIAN WEIGHTS AND MEASURES.

The unit of Russian currency is the ruble, valued at $0.515, which is divided into 100 kopecks.

MEASURES OF LENGTH.

1 verschok	= 1.75 inches.
1 arshin (16 verschoks)	= 2 feet 4 inches.
1 sazhen (3 arshins)	= 7 feet.
1 verst (500 sazhens)	= 1,166⅔ yards.
1 verst	= 3,500 feet.
1 verst	= 1,066781 kilometers.
1 verst	= 0.6629 mile.
1 yard	= 0.428571 sazhens.
1 yard	= 1.285714 arshins.
1 mile	= 1.508571 versts.
1 mile	= 754.285714 sazhens.

SQUARE MEASURE.

1 square arshin	= 5.44 square feet.
1 square sazhen	= 5.44 square yards.
1 dessiatine	= 2.7 acres.
1 dessiatine	= 1.0925 hectares.
1 morga	= 1.3 acres.
1 square verst	= 0.44 square mile.
1 square yard	= 0.183673 square sazhen.
1 acre	= 0.3704 dessiatine.
1 square mile	= 2.27587 square versts.
1 square mile	= 237.061224 dessiatines.

CUBIC MEASURE.

1 cubic verschok	= 5.359375 cubic inches.
1 cubic verschok	= 87.819661 cubic centimeters.
1 cubic arshin	= 0.4705 cubic yard.
1 cubic arshin	= 0.3597 cubic meter.
1 cubic sazhen	= 12.7037 cubic yards.
1 cubic sazhen	= 9.7171 cubic meters.
1 cubic yard	= 0.078717 cubic sazhen.
1 cubic yard	= 2.125 cubic arshins.

WEIGHTS.

1 doli	= 0.68576 grain.
1 doli	= 0.0014286⅔ troy ounce.
1 zolotnick (96 doli)	= 0.15047 avoirdupois ounce.
1 zolotnick	= 0.137152 troy ounce.
1 funt (96 zolotnicks)	= 13.166592 troy ounces.

1 funt	= 0·90281179 avoirdupois pound.
1 pood (40 funts)	= 526.66368 troy ounces.
1 pood	= 36.1127 avoirdupois pounds.
1 lot (3 zolotnicks)	= 0·45 avoirdupois ounce.
1 korzec	= 216 avoirdupois pounds.

CAPACITY MEASURE.

1 tchetvert	= 5·77 imperial bushels.
1 tchetvert	= 5·95 American bushels.
1 vedro	= 2·7 imperial gallons.
1 vedro	= 3·249 American gallons.
1 last	= 2 tons registry.
1 last	= 200 cubic feet.

APPENDIX F.

RUSSIAN TRADE STATISTICS.

STATEMENT of the Value of Imports into European Russia from various countries during the years 1911-13.

From.	1911.	1912.	1913.
	Roubles.	Roubles.	Roubles.
Germany	476,839,000	521,114,000	642,756,000
United Kingdom	[illegible]	[illegible]	170,352,000
United States	100,813,000	85,697,000	74,171,000
France	56,170,000	55,168,000	56,015,000
Finland	40,002,000	42,713,000	50,964,000
Austria-Hungary	33,784,000	32,053,000	34,683,000
*East Indies	24,414,000	25,663,000	29,997,000
Netherlands	17,453,000	19,149,000	21,540,000
Turkey	9,452,000	15,513,000	16,938,000
Italy	17,506,000	15,640,000	16,711,000
Sweden	9,798,000	10,671,000	16,125,000
*China	12,335,000	13,754,000	15,260,000
Denmark	7,687,000	6,445,000	12,848,000
Norway	8,820,000	10,251,000	9,875,000
Belgium	[illegible]	[illegible]	8,605,000
Egypt	7,844,000	3,123,000	5,929,000
Spain	1,933,000	2,427,000	5,669,000
Switzerland	7,191,000	3,164,000	5,635,000
Portugal	[illegible]	[illegible]	1,480,000
Roumania	[illegible]	[illegible]	1,414,000
*Persia	132,000	134,000	131,000
Other Countries	24,964,000	24,064,000	23,376,000

*Exclusive of trade across Asiatic frontier.

STATEMENT showing Imports into Russia; together with the portions received from the United Kingdom, Germany and the United States during the Years ended December 31, 1912 and 1913.

ARTICLES	Total Imports.		From United Kingdom.		From Germany.		From United States.	
	1912.	1913.	1912.	1913.	1912.	1913.	1912.	1913.
Foodstuffs and animals:	Roubles.	Roubles.	Roubles.	Roubles.	Roubles.	Roubles.	Roubles.	Roubles.
Grain:—								
Rye	5,568,577	11,106,203	5,140	42,232	5,382,904	11,037,420	.....	
Wheat	6,116,852	8,034,250	3,288	9,693	670,919	1,284,725	2,110	[illegible]
Oats	2,968,767	5,738,581	2,063	5,088	828,662	2,257,326	669	224,385
Potatoes	155,667	250,947	4	1	28,402	77,048	.....	15
Peas and beans, dried	405,951	622,710	13,493	1,920	141,835	272,408	2	10
Rice:—								
Husked	8,533,179	11,178,578	257,153	503,084	1,709,909	2,006,991	17,365	23,196
Unhusked	2,397,511	1,904,968	28,310	30,000	59	4,952	.....	.....
Flour, malt and groats:								
Flour	2,485,688	381,615	1,297	193	15,433	19,521	194,039	171,584
Groats	415,884	377,481	27,618	66,499	68,289	70,693	15,827	4,346
Malt	38,147	97,979	.....	3,521	28,678	62,113	.....	.....
Potato flour, starch, macaroni, arrowroot, dextrine, sago, etc.	444,082	390,999	38,167	48,134	270,733	244,832	1,598	305
Vegetables	2,668,775	3,426,150	5,701	7,622	404,896	547,817	3,220	3,655
Fruits and berries:—								
Fresh	11,329,267	14,668,088	65,743	91,653	1,840,583	2,310,247	7,235	1,960
Dried	9,044,106	11,528,805	16,149	10,137	862,546	1,037,025	130,981	78,317
Capers, olives (green or black), dried, in brine or in oil, not hermetically sealed	728,018	776,804	2,141	970	19,937	6,491	.....	.....
Anise-seed, wild thyme, coriander, orange nuts, carob beans	337,318	512,274	13,362	8,163	38,340	51,843	.....	.....
Nuts	6,432,839	7,292,551	228,170	231,353	894,172	579,260	9,008	2,499
Mustard, dried, ground, not prepared	12,074	17,705	490	101	11,508	15,969	.....	.....
Patties, various condiments, e.g., prepared mustard, soy, pickles, capers, olives, etc., in air tight receptacles	868,278	985,108	90,390	113,773	559,749	640,932	4,309	1,210
Edible fungi	54,824	46,092	810	513	25,456	15,520	42	.....
Spices	4,024,439	4,424,530	477,744	545,858	1,898,675	1,934,896	56,963	50,064
Bay-berries and galanga	21,983	14,261	5,824	1,134	7,194	5,621	.....	.....
Chicory and coffee substitutes	2,812	3,268	.....	.....	2,679	3,193	.....	.....
Coffee	9,525,185	9,027,643	517,644	613,541	5,849,603	5,496,389	185,749	69,000
Cocoa in the bean and cocoa husks	2,620,826	2,283,937	207,650	301,141	1,972,340	2,159,588	8,687	7,448
Tea	59,292,019	62,168,998	880,739	986,545	203,896	159,807	11	1,526
Tobacco	1,499,917	1,494,772	289,500	142,550	887,712	965,541	15,636	24,909

STATEMENT showing Imports into Russia; together with the portions received from the United Kingdom, Germany and the United States during the Years ended December 31, 1912 and 1913.—*Continued.*

ARTICLES.	Total Imports.		From United Kingdom.		From Germany.		From United States.	
	1912.	1913.	1912.	1913.	1912.	1913.	1912.	1913.
	Roubles.	Roubles.	Roubles.	Roubles.	Roubles.	Roubles.	Roubles.	Roubles.
Foodstuffs and animals:—*Con.*								
Sugar	29,115	33,186	620	.....	3,839	15,984	645	1,870
Honey, syrups and molasses	133,807	166,342	12,487	16,879	45,155	56,564	60	192
Confectionery and prepared fruits	3,847,730	4,277,529	69,987	125,678	2,085,611	2,374,496	198,282	153,343
Yeast	52,548	31,471	45	861	17,190	15,623	.....	100
Hops and extract thereof	937,391	850,584	12,586	5,730	863,628	785,247	.....	390
Liquors;—								
Ale, beer, mead, porter, etc.	96,440	87,646	11,526	4,188	41,514	38,717	.....	.....
Spirits of all kinds	5,309,888	7,412,151	129,291	223,066	2,018,040	2,436,542	762	5,527
Wines of all kinds	11,827,584	13,088,152	165,894	180,692	3,696,928	5,226,783	60	150
Vinegar of all kinds	19,941	22,915	751	3,220	10,424	8,481	2	10
Mineral waters	1,740,313	1,792,117	18,812	29,931	1,092,730	1,173,671	2,160	100
Cooking salt	1,355,168	1,342,950	31,708	73,275	570,960	833,830	17	86
Meat, salted, smoked, dried; sausages	53,741	32,634	8,580	1,528	4,791	7,539	4,362	743
Cheese	1,190,351	1,124,227	3,959	5,655	281,059	319,269	.....	12
Butter	887,486	1,325,079	465	5,781	5,862	11,491	94	.....
Fish and caviare;								
Herrings, cod, etc., salted or dried	25,768,500	26,076,340	8,660,039	9,123,912	4,500,611	5,227,179	3,554	10
Other fish	10,816,754	12,019,781	82,038	96,622	2,293,096	2,384,665	10,616	10,362
Oysters, lobsters, cuttlefish, etc	158,928	136,311	70	338	117,463	121,319	.....	.....
Comestibles, not separately designated; specially prepared food for animals	6,798,653	8,023,498	668	8,149	223,577	197,221	55	2,400
Animals, living, n.e.s.;—								
Cattle	9,541,872	13,821,411	5,600	130	40,468	38,139	.....	.....
Horses	1,499,718	2,590,178	14,850	10,700	105,390	128,637	.....	.....
Other	937,565	1,263,650	3,601	530	129,366	131,362	.....	14
Total foodstuffs and animals	221,626,438	255,513,443	12,418,167	13,682,224	42,772,202	54,810,837	874,060	838,911
Animal products and mfrs. of;—								
Fertilizers	8,987,546	9,353,263	1,061,212	878,863	5,525,712	6,277,129	13,385	8,330
Soot of all kinds	228,175	170,975	4,612	1,872	151,127	85,695	60	542
Glue	468,063	554,225	12,429	14,920	294,261	397,562	53,341	29,628
Horns of all kinds	1,466,510	1,270,309	87,630	104,407	413,756	330,888	162,530	114,802
Hair	723,029	811,806	8,420	18,218	447,831	501,365	1,304	2,464

Down and feathers	237,392	342,305	2,101	8,436	138,582	151,080		
Pillows, quilts, mattresses, stuffed with feathers, down or wool	14,279	14,694	369	931	8,839	9,481	35	110
Whalebone	130,705	144,767	435	1,620	116,274	116,913		
Sponges	43,132	57,660	2,233	5,221	26,659	35,270	410	1,500
Animal fat, oils of animal origin	13,858,732	14,699,998	7,766,358	6,241,908	3,941,032	5,475,706	130,674	256,423
Wax	7,924,314	8,491,608	416,582	483,666	6,195,158	6,802,391	75,759	32,518
Candles, torches, tapers	218,910	75,605	721	2,006	34,112	46,797	55	100
Hides and skins, undressed	15,944,570	24,747,386	222,526	333,901	11,442,482	17,100,494	468,149	189,764
Hides and skins, dressed	16,449,662	21,240,469	272,826	408,553	13,069,446	17,784,427	186,794	221,755
Fur skins	15,556,573	16,524,241	121,009	174,369	7,784,969	8,403,077	5,576	5,980
Manufactures of leather and skins	5,431,433	6,656,179	688,515	812,517	3,667,843	4,504,933	130,918	179,884
Total animal products and wares	87,953,950	101,355,390	10,667,778	9,491,408	56,261,383	68,023,208	1,228,989	1,048,797
Wood, woodenware and basketware:								
Woods:								
Cork bark, unwrought	4,846,148	4,582,191	42,749	30,966	979,464	568,553	53,473	17,042
In beams, logs, blocks, boards, planks, billets, joists, poles, rafts, also firewood and treenail wood	8,285,127	9,013,823	89,338	121,527	733,574	787,653	56,746	15,518
Carpenters' and cooper's ware	798,608	778,233	2,285	2,780	471,507	325,413	1,035	421
Cork bark, wrought	268,631	117,329	9,832	8,533	180,907	69,441	2	
Wooden manufactures	6,678,658	8,767,049	615,871	1,364,734	3,669,411	3,898,022	592,974	1,237,982
Plants and part of plants, n.e.s.	23,076,451	29,032,272	2,565,733	2,888,999	9,550,183	13,080,645	397,321	284,163
Teazels	85,428	102,785	2,400	1,816	64,645	73,365	3,260	
Basket makers' and plaited wares made from vegetable materials	890,919	853,488	24,578	40,254	551,725	547,357	223	329
Total wood, woodenwares and basketwares	44,939,970	53,247,170	3,352,786	4,459,609	16,201,416	19,350,449	1,105,034	1,585,455
Ceramic wares:								
Building materials (bricks, cement, etc.)	6,250,522	5,714,491	1,112,181	792,265	3,486,758	3,082,590	538	3
Stone, rough or rough-dressed	3,628,424	4,900,068	303,135	376,934	1,580,734	1,869,348	15,837	23,854
Precious and semi-precious stones	2,952,689	3,359,315	9,930	2,845	2,241,817	2,457,357	150	100
Jet, or black amber, mother-of-pearls, tortoise shell, yellow amber, meerschaum, ivory, celluloid, enamel, glazing, mosaic	2,055,725	2,577,616	81,460	32,091	1,925,908	2,502,270	2	
Asbestos	297,141	378,132	27,247	37,905	203,590	229,646	2,570	1,129
Stones of every kind except semi-precious or precious, also plaster of Paris and alabaster, wrought	475,078	728,695	11,543	22,353	370,249	457,285	36	221
Grinding and polishing substances and articles manufactured therefrom—graphite, carbons, etc	2,475,122	2,999,989	171,402	221,991	1,956,625	2,261,742	70,286	65,064
Artificial building stones and fireproof manufactures	1,576,518	2,223,007	238,034	377,541	977,374	1,392,682	6,386	21,783
Ceramic pipes, tiles, stoneware, also potters' wares of common clay	2,560,966	3,164,952	183,798	208,742	1,745,903	2,246,295	2,140	2,865
Earthenware and porcelain wares	1,665,321	1,855,157	119,549	163,233	1,331,701	1,474,271	736	1,930
Glassware	3,886,548	4,404,252	155,695	154,595	2,841,259	3,246,403	4,199	7,418
Plate glass and mirrors	515,190	726,261	3,725	4,957	478,874	664,898	430	530
Total ceramic wares	28,339,244	33,031,935	2,417,699	2,395,452	19,140,792	24,884,787	103,310	124,897

STATEMENT showing Imports into Russia; together with portions received from the United Kingdom, Germany and the United States during the Years ended December 31, 1912 and 1913.—*Con.*

Articles.	Total Imports.		From United Kingdom.		From Germany.		From United States.	
	1912.	1913.	1912.	1913.	1912.	1913.	1912.	1913.
	Roubles.	Roubles.	Roubles.	Roubles.	Roubles.	Roubles.	Roubles.	Roubles.
Combustibles, asphalt, resins and products thereof:								
Coal	48,143,168	76,424,510	26,576,013	40,801,943	19,365,350	31,020,206	3,752	20,697
Coke	7,875,361	11,345,252	1,114,118	1,810,419	3,438,474	4,790,578	.....	.....
Tar and pitch	887,568	1,223,138	49,080	25,013	638,757	886,342	.....	1,000
Anthracene	36,491	36,002	1,345	3,500	26,636	17,002	.....	.....
Naphthaline	147,562	157,403	41,000	55,989	98,504	98,127	.....	.....
Phenol	47,262	96,167	20,800	73,105	25,295	22,227	.....	.....
Benzol	226,712	470,579	49,943	172,645	176,719	297,249	.....	.....
White rosin or colophany	4,883,078	4,771,472	531,768	135,617	1,550,588	2,390,090	1,088,420	1,077,983
Pine pitch	18,377	33,337	1,122	1,382	7,679	13,887	1,206	77
Brewers' pitch	121,564	142,678	143	2,543	50,522	62,973	1,663	591
Asphalt and birch tar	1,003,199	1,081,481	256,143	138,314	686,490	762,092	16,724	108,380
Naphtha, crude, black and unpurified	1,579	46,199	1,463	3,130	1	700	.....	.....
Liquid products, distilled from naphtha, solar oil, paraffine and lubricating oil, gasoline, etc	1,215,282	2,101,841	132,654	174,078	490,855	1,376,003	556,816	425,819
Turpentine or oil of turpentine	521,037	616,259	97,514	107,088	295,772	283,215	1,476	562
Gums, resins, resinous substances and balsams;								
Rubber, crude	34,192,908	40,156,287	5,541,280	12,504,743	10,656,059	9,387,582	5,296,020	5,953,467
Other gums, etc	2,618,975	3,446,318	526,537	698,291	1,360,431	1,881,313	8,072	10,959
India rubber, prepared and manufactured	1,777,297	2,207,625	120,972	231,254	1,532,556	1,767,015	15,074	13,824
Total combustibles, asphalt, resins, etc	103,717,420	144,356,548	35,061,895	56,939,054	40,400,688	55,056,551	6,989,223	7,617,359
Chemicals, drugs, colours, etc.:—								
Stassfurt salts, chloride of potassium, sulphate of potash	1,165,643	933,858	77,989	59,641	1,078,138	860,015	.....	2,485
Natural salts of all kinds, not refined, brines, etc	10,365	8,929	172	130	8,796	5,666	.....	.....
Sulphur	1,313,771	1,332,886	161,364	78,104	463,929	597,818	2,653	40,173
Antimony	486,115	531,103	63,673	132,268	306,986	323,258	.....	.....
Boracic, boracic acid and borax	170,831	208,274	40,281	56,021	121,941	132,751	.....	12,000
Magnesite	228,254	332,534	4,436	16,572	123,018	165,052	.....	3,200
Tartar (cream of tartar), tartrate of lime	710,795	633,500	4,766	45,036	131,947	137,000	6,016	9,480
Heavy spar, witherite	403,072	392,608	87,715	34,432	293,358	322,040	.....	.....
Strontianite and celestine	13,650	14,040	.....	4,830	13,650	9,210	.....	.....
Ammoniacal preparations	344,374	412,748	148,265	222,224	159,286	163,230	.....	576
Arsenic, metallic	75,086	107,506	14,266	6,047	46,671	76,623	.....	831

Prussiates and chromates	241,416	243,440	34,111	52,526	170,886	157,021	.....	2,116
Alum and sulphate of alumina	37,448	35,063	7,171	223	10,262	24,088	.....	.....
Oxides	53,407	105,425	7,750	3,050	45,036	90,310	.....	.....
Saltpetre	5,419,645	5,071,658	651,845	782,733	4,228,841	3,763,720	99,523	107,648
Chloride and sulphate of magnesia, chloride of calcium	362,622	541,275	21,380	2,125	330,168	503,038	.....	300
Carbonate of calcium precipitate	44,433	50,351	2,040	1,140	42,377	47,195	.....	.....
Soda and potash	705,396	646,139	53,271	55,717	539,013	488,431	2	105
Chloride of lime, bleaching lye	2,932	2,939	893	614	1,774	2,011	.....	.....
Acids and sulphide of carbon	1,007,415	1,058,792	57,855	76,509	827,589	835,620	200	2,293
Copperas	230,415	285,900	74,217	43,220	107,233	217,046	.....	.....
Salt and preparations containing gold, platinum or silver	228,508	233,848	1,362	672	220,189	226,340	.....	.....
Anthraquinone	11,617	20,617	.....	.....	11,217	20,617	.....	.....
Tartar emetic; fluoride, lactate and oxalate of antimony, also double salts of the same	15,898	13,744	.....	50	14,598	9,715	.....	.....
Chemical and pharmaceutical preparations, n.o.p	10,519,955	12,123,388	939,053	591,860	8,298,203	9,878,710	12,528	34,347
Compounded medicines and medicinal preparations	1,981,563	2,203,447	92,265	148,087	1,541,487	1,686,602	180	328
Phosphorus	166,156	160,960	73,507	84,707	90,489	69,274	.....	3,792
Sulphuric ether, chloroform, chloral and chloroform	122,592	115,695	2,410	954	115,525	111,358	.....	.....
Opium and laudanum	200,604	268,316	2,053	4,244	82,175	126,525	.....	.....
Vegetable oils and glycerine, unrefined	6,299,245	5,756,299	1,069,045	608,104	2,119,287	1,936,023	579	22,365
Aromatic waters, aromatic substances, cosmetics, perfumes, etc	3,727,508	3,874,985	135,137	156,421	2,499,741	2,693,520	544	746
Soaps	517,888	527,758	30,507	31,700	294,226	312,427	1,156	276
Varnishes	197,493	206,613	11,652	19,193	168,289	167,891	2,482	1,084
Sealing wax and gum lac	2,220	2,433	155	184	1,418	1,601	1	.....
Matches, chemical	11,887	22,892	1	306	10,437	20,888	546	168
Tanning materials	5,889,182	7,719,328	372,418	360,748	2,480,854	3,394,935	789,622	461,574
Dyeing substances, natural	1,907,621	2,757,312	92,235	145,841	743,550	1,199,368	236,532	6,580
Archill (cudbear), cutch, etc	327,827	307,991	54,799	44,368	242,924	186,327	3,743	1,053
Madder	1,513	2,151	.....	300	1,418	568	.....	.....
Indigo (not including extracts)	2,009,453	1,988,385	118,866	23,179	1,286,126	1,410,971	.....	.....
Cochineal	142,533	189,982	1,717	2,113	63,289	71,888	.....	.....
Blue, Prussian, Parisian, washing, etc	239,026	228,687	26,258	14,545	187,598	189,992	700	191
White lead and zinc white	757,769	1,101,505	98,879	161,878	346,19	447,418	49,970	611
Red lead	165,671	165,685	29,558	46,372	70,421	105,289	.....	1,001
Colours obtained from copper and arsenic	635,696	792,054	70,490	50,669	195,368	224,815	520	.....
Dyeing preparation	63,376	58,028	4,018	5,507	53 494	47,451	.....	300
Alazirin and similar colours	5,018,724	5,198,554	10,551	30,641	4,931,106	4,962,056	9	236
Colours for miniature painting	162,225	202,065	797	3,247	151,028	188,774	100	.....
Colouring and dyeing materials, n.e.s., blacking, ink, etc	1,530,795	1,977,723	22,635	45,670	1,337,065	1,671,133	3,917	8,123
Total chemicals, drugs, colours, etc	55,824,631	61,162,511	4,773,829	4,281,684	36,614,010	40,283,619	1,211,523	724,352
Ores, metal and metal wares of all kinds:—								
Metallic ores and minerals	1,368,881	1,378,927	99,089	138,787	493,134	342,519	.....	.....
Cast iron in pigs, scraps and shavings	4,574,022	3,081,426	1,506,316	278,088	2,462,705	1,807,906	650	75
Manufactured iron, bars, rails and sheets	3,709,864	5,157,941	586,169	878,284	2,693,567	3,543,247	357	2,432
Tin plate and other coated iron	1,338,547	2,257,515	222,653	146,572	980,474	2,093,930	87	102
Steel in bars, rails and sheet	1,298,480	2,236,540	266,725	408,495	657,097	1,147,729	33,231	50,258

STATEMENT showing Imports into Russia; together with portions received from the United Kingdom, Germany and the United States during the Years ended December 31, 1912 and 1913—*Con.*

ARTICLES.	Total Imports.		From United Kingdom.		From Germany.		From United States.	
	1912.	1913.	1912.	1913.	1912.	1913.	1912.	1913.
Ores, metal and metal wares of all kinds: *Con.*	Roubles.	Roubles.	Roubles.	Roubles.	Roubles.	Roubles.	Roubles.	Roubles.
Copper, aluminium, nickel, cobalt and other metals and alloys, n.e.s.	9,525,940	12,140,922	2,065,869	1,702,015	4,651,636	6,858,473	1,051,457	905,540
Tin in pigs, rods, scrap and sheet	11,442,555	12,144,689	3,193,979	3,498,592	4,038,866	3,744,187	79,612	27,446
Mercury	316,943	401,705	193,890	196,961	33,235	172,995	856	403
Lead in pigs, scrap, rolls, sheet, wire, pipe; letharge; type metal unmanufactured	8,897,223	12,644,285	2,963,378	2,447,504	4,010,381	5,856,331	103,608	944
Zinc	5,420,732	6,309,793	338,455	305,341	4,461,781	5,086,047	38,800	.....
Gold, silver, platinum and mfrs of	3,421,472	3,406,299	11,157	9,201	2,927,056	2,957,889	60	335
Manufactures of copper, aluminium, nickel, etc., and alloys thereof	10,142,024	10,384,245	201,069	222,103	9,108,780	9,141,874	27,347	29,391
Cast iron wares	3,461,950	4,340,080	352,050	488,845	2,685,868	3,236,451	57,209	126,587
Iron and steel manufactures;—								
Merely forged, stamped or moulded	1,226,066	1,410,613	101,116	148,764	963,143	1,115,362	35,627	25,944
Boilermakers' work and pipes	7,883,566	10,926,595	1,046,569	1,727,877	5,807,499	8,158,647	50,900	122,643
Wrought, turned or polished	6,822,414	8,304,693	376,369	526,751	5,717,922	7,056,751	86,278	118,311
Tin, plate manufacture	5,432,483	5,855,016	171,440	182,240	4,592,766	5,152,411	55,357	30,352
Wire of iron, steel and copper	1,859,768	2,281,129	494,804	725,322	1,170,272	1,448,856	8,347	9,214
Wire manufactures	4,161,937	4,836,275	368,919	297,139	3,356,458	4,063,417	56,885	44,134
Needles	433,694	415,516	33,790	23,684	380,835	367,033	11,450	19,324
Cutlery	1,412,644	1,531,660	16,859	21,083	1,187,919	1,316,895	1,818	2,269
Side arms, fire arms, cartridges	2,347,036	2,477,888	30,164	40,315	1,942,464	2,121,849	77,404	4,769
Scythes, bills and sickles	1,029,687	1,458,110	10,794	15,321	90,472	69,924	614	4,840
Straw choppers, shovels, forks, hoes, etc.	1,161,759	1,041,868	103,355	115,758	794,090	778,228	11,599	7,271
Hand tools	5,233,183	5,972,081	589,474	944,735	3,501,916	4,096,125	227,602	97,779
Printing trade accessories	278,749	274,256	3,558	3,864	257,770	250,003	663	1,565
Manufactures of tin, zinc, etc., except fancy articles and toys	317,710	321,057	12,077	16,379	251,486	246,489	3,206	2,086
Manufactures of lead, n.e.s.	107,631	274,989	12,118	19,115	90,488	168,491	140	151
Tinsel and foil	98,832	126,321	161	221	89,365	113,573	25	.....
Bronzing powder of non-precious metals	349,901	313,518	150	1,270	340,041	334,427	.....	250
Machines and apparatus;								
Of cast or wrought iron or steel,								
Gas and petrol motors, steam engines, locomotives, printing, paper-making and woodworking machines, etc.	21,110,275	27,491,775	2,382,125	3,317,218	16,592,663	19,757,376	1,024,385	3,486,798

Metal working machines, except rolling machines and steam hammers, steam fire engines, meters, typewriters, sewing machines	9,486,271	14,845,866	1,085,359	1,296,916	6,899,449	12,011,150	903,779	1,017,528
Other machines and apparatus of cast or wrought iron or steel	40,009,164	50,242,962	6,925,526	9,290,022	28,299,262	35,965,459	1,485,554	920,133
Of copper and its alloys	536,346	883,507	33,350	159,342	445,463	655,211	9,281	11,072
Electric dynamos, motors, transformers	6,639,539	10,519,098	355,673	514,792	5,827,618	9,291,945	84,305	43,970
Agricultural machines and implements without steam motors, n.e.s.	23,720,873	24,789,720	2,596,410	2,283,801	10,665,305	9,924,716	6,310,490	5,289,234
Portable engines and threshers and steam ploughs	6,258,246	7,265,481	3,270,177	4,277,299	2,521,618	2,534,350	71,830	17,500
Reaping and binding machines, ploughs, threshers, rakes, cream separators, etc.	26,644,915	13,939,214	3,908,108	3,735,706	6,968,500	3,024,960	13,128,389	3,523,942
Parts of machines of all sorts	16,009,082	19,313,521	2,071,720	2,418,730	10,642,763	13,805,338	1,840,476	1,391,891
Scales and accessories	572,856	702,264	58,135	44,353	451,712	502,327	46,705	133,071
Physical, astronomical, mathematical, etc., instruments and electro-technical accessories	17,466,786	21,201,941	316,730	359,351	15,426,365	18,614,244	110,528	253,047
Spectacles, optical glasses, etc.	298,999	302,200	719	1,293	245,484	267,615	1	
Clocks and watches	3,070,891	2,110,578	2,645	8,501	2,271,996	1,658,968	2,834	61
Musical instruments	7,143,508	6,592,776	99,104	168,342	6,369,215	5,865,267	15,324	20,176
Vehicles:—								
Automobiles	10,818,765	17,380,770	804,190	1,512,320	8,042,355	13,790,805	618,600	584,000
Other vehicles	4,252,269	5,446,301	103,997	542,264	3,172,377	4,204,941	17,659	16,167
Railway cars	816,090	678,100	4,500	.....	577,490	312,500	.....	10,000
Vessels, sea-going and river—								
Iron	3,291,354	5,536,150	809,500	2,853,000	1,330,954	1,264,880	351,760	40,300
Wood	295,844	410,131	58,488	27,515	48,711	157,328	740	2,120
Total ores, metal and metal wares	303,556,216	353,385,313	40,559,210	48,191,691	196,088,725	236,426,449	28,044,423	18,394,898
Paper goods and typographic articles —								
Rags and pulp —								
Rags	1,449,266	1,853,579	52,446	261,422	771,456	1,054,782	.....	186
Paper pulp and waste	1,902,693	2,195,897	8,367	8,234	364,833	422,798	915	1,504
Paper wares —								
Paper								
Packing paper	4,501,427	4,715,558	.....	2	172	1,830	.....	
Paper, all kinds, plain, white or coloured, n.o.p.	13,739,951	18,758,049	11,477	19,183	413,794	480,538	761	733
Other paper	8,409,735	9,306,976	256,909	343,593	4,898,341	5,562,649	49,431	48,641
Books, pictures, maps, etc.	3,878,410	4,065,515	63,469	65,949	3,430,542	3,552,703	7,250	3,717
Total paper goods and typographic wares	33,881,482	40,895,574	392,668	698,383	9,879,138	11,075,210	58,357	54,781
Textiles and manufactures, thereof								
Raw cotton	94,257,568	114,040,983	9,363,232	9,502,854	15,960,771	27,381,662	44,707,697	47,374,613
Other vegetable fibrous substances, raw	11,584,892	11,787,111	991,207	481,543	1,857,847	1,194,128	407,526	251,858
Raw silk	22,433,902	24,404,341	120,590	215,650	11,832,157	13,371,137	.....	
Silk cocoons, waste, wadding, etc.	4,504,127	6,811,048	930	21,262	576,695	466,845	.....	
Wool and down, uncombed, unspun	49,783,273	60,399,330	4,341,159	5,635,739	17,760,306	24,321,333	114,567	32,108
Cotton carded, wadding, combings, etc.	963,716	860,806	13,681	18,266	767,521	701,292	3,503	175
Cotton yarn	12,820,276	9,836,412	5,227,755	3,580,509	6,001,360	5,109,733	10,374	16,616

STATEMENT showing Imports into Russia; together with portions received from the United Kingdom, Germany and the United States during the Years ended December, 31, 1912 and 1913.—*Con.*

ARTICLES.	Total Imports		From United Kingdom.		From Germany.		From United States.	
	1912.	1913.	1912.	1913.	1912.	1913.	1912.	1913.
	Roubles.	Roubles.	Roubles.	Roubles.	Roubles.	Roubles.	Roubles.	Roubles.
Textiles and manufactures thereof:—*Con.*								
Yarns of jute, flax, hemp, etc	341,871	477,708	75,438	78,484	165,438	149,725	1	40
Silk, twisted and spun	2,447,018	3,327,401	116,672	391,198	1,930,251	2,629,794	1	896
Wool, combed	1,983,221	2,301,587	266,797	548,076	911,812	1,345,217	....	....
Wool, spun or twisted	14,131,582	16,664,994	7,164,429	6,848,210	6,218,373	8,610,663	1	303
Cotton tissues	15,042,681	15,232,991	1,033,317	1,602,102	9,660,669	10,630,221	11,098	17,923
Cordage and twine of jute, hemp, etc	4,733,465	3,205,006	812,292	219,856	973,181	1,419,763	2,515,758	981,586
Jute and linen sacks and sacking	240,652	153,868	15,948	9,888	196,011	112,111	2,621	1,309
Jute, flax, hemp, etc., tissues	1,729,927	1,469,036	77,013	96,619	852,485	795,312	2,169	445
Oil-cloth (except oiled silk) sail cloth, tarpaulins, belting of hemp or cotton, hose of hemp, etc	885,611	1,085,016	239,850	277,206	529,714	625,646	11,602	14,308
Silk kerchiefs, stuffs, foulards, ribbons, velvets, oil-silk, etc	6,740,828	7,937,342	114,740	98,242	4,284,258	5,729,984	400	1,036
All manufactures of wool, including carpets	16,738,870	17,431,996	2,282,811	2,691,466	11,664,863	11,901,521	4,718	12,177
Knitted wares and trimmings of all materials	7,904,438	9,035,097	49,403	75,306	7,205,487	8,416,405	19,964	1,485
Lace, embroideries and tulle	6,872,485	7,651,856	134,120	192,249	5,618,616	6,196,001	166	404
Total textiles and manufactures, of	276,140,403	314,116,929	32,441,384	32,584,725	105,077,815	131,108,553	47,810,086	48,703,382
Wearing apparel, buttons, jet, small wares, writing materials, etc.—								
Clothing	3,042,613	3,136,868	30,960	45,448	2,305,134	2,656,873	1,324	1,251
Hats and caps	1,599,619	1,720,074	42,686	47,478	1,062,500	1,268,411	32	15
Umbrellas and parasols	49,343	55,175	1,077	666	42,963	49,598	2	....
Buttons	2,164,614	2,332,601	17,343	14,762	1,796,160	1,934,029	162	321
Feathers, decorative, and artificial flowers	1,004,129	806,188	2,877	1,530	716,900	579,674	60	50
Jet and beads	716,910	755,376	1,147	711	518,544	569,784	51	80
Fancy and toilet articles and toys	5,598,179	5,974,902	107,541	93,851	4,775,320	5,222,665	2,038	1,965
Accessories for painting, drawing and writing	1,885,522	2,160,321	63,907	83,075	1,669,427	1,890,364	1,067	1,091
Archæological, numismatic, natural history, etc., collections	20,635	12,761	145	....	13,528	4,526	....	....
Samples	14,529	14,816	3,687	293	9,054	13,170	85	50
Total wearing apparel, small wares, etc	16,096,443	16,969,082	279,470	287,814	12,909,530	14,189,096	4,821	4,856
Total imports	1,411,172,247	1,374,083,895	142,455,886	135,042,044	582,855,899	652,598,475	87,129,826	79,085,362

STATEMENT showing Exports of Russian Produce from Russia; together with portions sent to the United Kingdom, Germany and the United States during the Years ended December 31, 1912 and 1913.

Articles.	Total Exports.		To United Kingdom.		To Germany.		To United States.	
	1912.	1913.	1912.	1912.	1912.	1913.	1912.	1913.
	Roubles.	Roubles.	Roubles.	Roubles.	Roubles.	Roubles.	Roubles.	Roubles.
Animals:								
Horses	12,194,254	13,884,801	1,008,650	1,217,750	7,526,760	8,873,507	4,200	6,200
Fowls and game	9,111,723	9,466,921	80	51,152	8,589,316	8,704,144	.....	.....
Cattle, sheep and pigs	8,783,763	10,087,143	22,800	161,791	8,548,178	8,697,346	57	60
Brandy and corn spirit	9,330,987	5,250,996	52,141	50,220	3,389,331	1,122,700	6,790	11,202
Bristles	9,497,022	8,871,132	1,495,536	423,043	6,548,617	6,664,040	1,050	2,540
Butter (exclusive of margarine)	68,535,093	71,558,097	30,274,757	31,932,408	23,812,987	25,009,709	21,627	416
Caviare	3,312,931	4,244,827	97,556	229,524	1,846,916	2,098,130	900	3,826
Clothing, ready-made	1,530,993	1,728,539	17,891	7,126	57,485	78,797	3,454	1,170
Corn, flour and meal:—								
Wheat	192,232,867	225,268,214	32,144,503	21,087,142	9,843,857	12,691,559	35,670	2
Rye	28,984,249	32,867,680	3,358,129	1,322,067	6,457,326	4,751,981	.....	.....
Barley	153,138,151	186,193,609	13,241,253	16,352,995	92,899,968	114,458,985	12,905	.....
Oats	51,830,645	32,018,352	9,640,618	7,621,768	8,609,798	2,092,437	.....	.....
Maize	37,838,699	25,081,962	4,989,926	3,369,457	6,107,204	2,658,140	16,226	.....
Peas	17,740,189	19,258,761	463,671	972,114	11,956,065	10,876,631	63,257	4,006
Flour of wheat	11,161,186	17,161,395	5,208	18,284	11,748	9,454	4,397	.....
" of rye	6,633,807	7,273,797	1,215	2,080	556	27,248	.....	.....
Bran	36,374,115	32,715,985	286,247	169,220	31,407,891	28,261,771	.....	10
All other	15,937,387	16,721,392	340,432	339,387	7,974,627	7,375,995	61,613	31,397
Total corn, flour and meal	551,871,595	594,501,147	64,471,202	51,254,514	175,269,040	183,204,201	194,068	35,415
Cotton, manufactures of	37,762,747	43,894,694	3,193	943	20,952	18,223	230	110
Eggs	84,671,955	96,645,691	32,739,752	33,695,172	23,618,382	23,642,834	10,910	30,536
Flax, raw	107,538,775	86,817,524	32,691,471	21,779,333	26,346,528	20,048,52	56,060	69,495
" tow	8,518,676	7,370,612	4,309,538	3,187,373	1,084,742	1,526,571	11,064	5,679
Fur and sheep skins	22,876,152	17,052,047	4,890,155	2,491,426	13,201,782	11,036,870	1,309,252	1,566,644
Hemp, raw	17,399,767	20,368,697	5,250,117	4,090,172	8,532,696	11,259,672	115,788	96,029
Leather and hides, untanned	49,262,478	37,107,252	16,668,676	7,830,050	13,023,885	14,898,564	11,076,997	5,802,332
Oil cake	39,079,976	38,686,741	2,823,100	3,469,919	14,884,636	17,167,116	6,221	.....
Oil:—								
Illuminating, petroleum, etc	38,411,916	50,085,959	8,350,659	8,017,480	5,469,701	9,238,699	5,306	18,382

STATEMENT showing Exports of Russian Produce from Russia; together with portions sent to the United Kingdom, Germany and the United States during the Years ended December 31, 1912 and 1913.

Articles.	Total Exports.		To United Kingdom.		To Germany.		To United States.	
	1912.	1913.	1912.	1913.	1912.	1913.	1912.	1913.
	Roubles.	Roubles.	Roubles.	Roubles.	Roubles.	Roubles.	Roubles.	Roubles.
Seeds, oleaginous:—								
Linseed	20,392,010	10,070,138	7,645,738	2,453,383	5,107,347	2,459,974	16,161	
Rape and kohlrabi	3,431,853	4,227,150	955,929	1,142,170	1,429,467	1,583,241	1,280	
Sugar:—								
Refined, in loaves	18,286,994	19,553,266	1,836		1			
Other	38,582,983	8,005,522	18,720,700	15,421	1,855,653	338,142		
Wood of all sorts	153,380,308	164,930,111	68,277,444	66,908,582	43,401,590	42,263,649	200.345	315,959
Wool, raw, unspun	11,226,233	10,663,981	4,018,669	3,505,705	2,465,610	2,556,848	1,895,055	1,421,506
All other articles	194,006,383	191,061,733	23,023,156	23,886,456	58,903.292	51,093,436	3,070,199	4,767,443
Total exports	1,518,797,567	1,520,134,721	327,810,746	267,801,113	453,827,894	453,584,437	18,007,014	14,154,944

COMPARATIVE TABLE of principal articles of import by sea from foreign countries into Russian Pacific Ocean ports during the years 1909-11.

ARTICLES.		1909.		1910.		1911.	
			£		£		£
Agricultural machinery, not specified	tons.	782	20,642	1,829	43,535	2,124	52,586
Almonds and nuts	"	685	7,356	1,022	10,113	918	10,107
Animal fat	"	1,250	26,945	1,566	38,731	1,864	57,789
Asphalt and tar	"	2,959	5,623	1,526	5,133	3,223	17,905
Basket and plated wares	"	576	6,704	1,160	8,591	1,092	9,066
Beans and peas	"	33	206	14	79	273	1,561
Beer and stout	gal.	5,791	683	17,404	13,903	36,285	1,211
Belting, hemp and cotton	tons.	5	269	9	1,053	12	1,517
Binding twine	"	8	58	90	1,617	259	4,220
Boilers, iron and steel, and boilermakers' work	"	134	3,434	304	6,844	778	12,210
Boots and shoes	"	26	9,001	3	2,028	4	3,212
Cables, ropes and twine, vegetable	"	698	19,958	751	21,609	737	24,745
Cast-iron wares	"	774	11,412	1,020	16,763	1,939	27,842
Cattle	head.	16,466	72,473	29,989	129,926	34,229	131,275
Ceramic and potter's ware	tons.	268	1,700	172	933	485	3,623
Cereals in the grain	"	454	2,430	500	3,091	2,485	14,685
Children's toys	cwt.	30	283	3	702	4	1,555
Coal	tons.	25,602	19,187	35,563	27,706	77,556	72,089
Coke	"	58	56	205	195	354	399
Condensed milk	"	486	11,166	570	18,993	808	25,206
Condiments, *e.g.*, soy, pickle, mustard, truffles, etc.	"	610	14,840	777	45,825	847	2,898
Copper	"	52	3,272	54	3,323	58	4,081
Cosmetics and aromatic substances	"	12	4,526	11	1,832	9	3,650
Cotton—							
Scutched and carded	"	71	4,519	89	6,316	112	7,461
Yarn	"	26	3,521	1	1,960	28	3,804
Tissues	"	.....	.....	.....	.....	9	2,760
Dynamo electrical machines and electro motors	"	79	10,383	93	6,037	176	9,431
Eggs, fresh	"	.....	.....	2,802	36,831	2,557	56,981
Electrical switches, communicators and various appliances	"	22	3,387	24	5,630	42	8,400
Electrical incandescent lamps	"	.....	.....	.....	.....	6	3,859
Electric-technical measuring appliances	"	.....	.....	.....	.....	4	1,361
Fancy and toilet articles	"	41	1,560	9	4,061	7	3,517
Fire-bricks and tiles	"	582	1,040	1,514	1,965	3,249	3,010
Fish, oysters, etc.	"	81	3,222	63	1,972	108	4,4 4
Fishing nets	"	74	7,231	78	7,649	79	9,038
Flour of all kinds except potato flour	"	4,483	40,152	333	3,498	1,259	11,652
Flour mill machinery	"	18	500	.....	.....	.....	.....
Fruits and berries, fresh and dried	"	8,276	82,527	9,854	80,883	.....	96,282
Glassware	"	2,755	30,765	3,425	37,320	3,019	53,153
Hair and bristles	"	13	1,567	7	471	20	1,435
Hand tools	"	1 0	6,250	505	20,224	736	30,967
Harvesters, reapers and binders	"	.....	.....	31	1,120	660	13,749
Iron—							
Cast	"	139	387	499	1,397	302	937
Flat, bar and assorted	"	4,608	30,340	6,249	42,520	8,629	61,520
Rails	"	697	3,250	2,457	16,133	4,217	28,759
Sheet, "I" beams and shaped	"	4,894	32,761	6,499	46,391	5,02.	37,641
Iron and steel manufactures—							
Forged, stamped and moulded	"	146	3,682	839	17,789	608	11,332
Iron not otherwise mentioned	"	1,344	39,923	1,587	38, 81	3,53	74,745
Knitted wares and trimmings	"	26	16,328	12	3,703	17	7,092
Leather belting	"	7	563	9	1,686	19	2,758
Locks	"	69	3,087	104	4,268	153	5,577
Locomotives and trollies, locomotive steam wagons	"	39	1,900	59	2,066	20	1,590
Machines and apparatus of cast iron, iron and steel	"	564	24,933	522	14,806	947	2 ,681
Machines and apparatus, parts of	"	645	14,970	965	33.274	2,075	96,758
Meat, fresh	"	2,218	45,767	3,279	81,814	2,777	64,875
" salted and smoked, and sausages	"	3,212	4,891	30	707	97	3,134
Musical instruments	"	.....	4,455	.....	1 708	.....	2,238
Nails, forged	"	46	869	96	1,817	66	979
Naphthaline	"	10	639	17	295	30	559

COMPARATIVE TABLE of principal articles of import by sea, &c.—*Continued.*

ARTICLES.		1909.		1910.		1911.	
			£		£		£
Paraffin	tons.	6	144	248	5,670	546	11,814
Pipes (metallic) of all kinds	"	422	6,723	836	16,433	1,174	18,945
Ploughs	"	307	5,480	214	6,185	344	5,147
Portable engines	"	237	11,340	319	12,884	426	23,020
Potatoes	"	163	405	235	868	2,467	7,843
Pumps, hand and fire	"	11	498	44	1,700	76	2,327
Salt	"	29,887	75,000	50,356	106,234	58,150	153,854
Scythes, shovels, rakes, etc.	"	259	5,306	837	15,044	1,450	25,750
Sewing machines	"	391	28,608	189	13,032	380	28,260
Soda and potash	"	1 283	7,615	1,679	10,667	2,028	13,500
Spirituous liquors	gal.	62,313	39,486	11,380	9,667	26,943	18,474
Steam engines	tons.	13	704	36	1,037	134	3,874
Steel—							
Assorted, in billets and scrap	"	137	728	516	2,870	648	3,200
Sheet	"	87	618	132	940	413	3,000
Tanning materials	"	13	90	55	410	135	1,868
Threshing machines	"	.....	.....	.....	.....	69	1,285
Vegetable oils and glycerine	"	461	11,969	1,254	29,203	1,221	32,883
Vegetables	"	6,227	35,460	8,630	50,230	7,045	39,581
Weighing scales	"	36	2,246	79	3,239	153	6,580
Winnowing machines	"	.....	.....	2	69	36	1,870
Wire nails and barbed wire	"	.....	.....	3,339	47,334	3,339	51,224
Wooden manufactures	"	1,327	8,508	401	10,279	337	10,757

COMMERCIAL INTELLIGENCE SERVICE.

Canadian Trade Commissioners and Commercial Agents should be kept supplied with catalogues, price lists, discount rates, etc., and the names and addresses of trade representatives by Canadian exporters. Catalogues should state whether prices are at factory point, f.o.b. at port of shipment, or which is preferable, c.i.f. at foreign port.

CANADIAN TRADE COMMISSIONERS.

Argentine Republic.

H. R. Poussette, Reconquista, No. 46, Buenos Aires. *Cable Address, Canadian.*

Australia.

D. H. Ross, Stock Exchange Building, Melbourne. *Cable Address, Canadian.*

British West Indies.

E. H. S. Flood, Bridgetown, Barbados, agent also for the Bermudas and British Guiana. *Cable Address, Canadian.*

China.

J. W. Ross, 13 Nanking Road, Shanghai. *Cable Address, Cancoma.*

Cuba.

Acting Trade Commissioner, Lonja del Comercio, Apartado 1290, Havana. *Cable Address, Cantracom.*

France.

Phillippe Roy, Commissioner General, 17 and 19 Boulevard des Capucines, Paris. *Cable Address, Stadacona.*

Japan.

G. B. Johnson, P.O. Box 109, Yokohama. *Cable Address, Canadian.*

Holland.

Acting Trade Commissioner, Zuidblaak, 26, Rotterdam. *Cable Address, Watermill.*

Newfoundland.

W. B. Nicholson, Bank of Montreal Building, Water street, St. John's. *Cable Address, Canadian.*

New Zealand.

W. A. Beddoe, Union Buildings, Customs street, Auckland. *Cable Address, Canadian.*

South Africa.

W. J. Egan, Norwich Union Buildings, Cape Town. *Cable Address, Contracom.*

United Kingdom.

Acting Trade Commissioner, Sun Building, Clare street, Bristol. *Cable Address, Canadian.*

J. E. Ray, Central House, Birmingham. *Cable Address, Canadian.*

Acting Trade Commissioner, North British Building, East Parade, Leeds. *Cable Address, Canadian.*

F. A. C. Bickerdike, Canada Chambers, 36 Spring Gardens, Manchester. *Cable Address, Contracom.*

J. Forsythe Smith, Fruit Trade Commissioner, Canada Chambers, 36 Spring Gardens, Manchester.

J. T. Lithgow, 87 Union street, Glasgow, Scotland. *Cable Address, Contracom.*

Harrison Watson, 73 Basinghall street, London, E. C., England. *Cable Address, Sleighing, London.*

SPECIAL TRADE COMMISSIONER.

Lumber.

H. R. MacMillan, visiting Europe, Africa, Australasia and the Orient.

C. F. Just, Russia.

CANADIAN COMMERCIAL AGENTS.

British West Indies.

Edgar Tripp, Port of Spain, Trinidad. *Cable Address, Canadian.*

R. H. Curry, Nassau, Bahamas.

South Africa.

D. M. McKibbon, Room 34, Permanent Buildings Harrison Street, Johannesburg.

E. J. Wilkinson, P.O. Box 673, Durban, Natal.

Norway and Denmark.

C. E. Sontum, Grubbeged No. 4, Christiana, Norway. *Cable Address, Sontums.*

CANADIAN HIGH COMMISSIONER'S OFFICE.

United Kingdom.

W. L. Griffith, Secretary, 17 Victoria street, London, S.W., England. *Cable Address, Dominion, London.*

ENLARGED CANADIAN TRADE INTELLIGENCE.

Under the arrangement made by the Minister of Trade and Commerce with Sir Edward Grey in July, 1912, the Department is able to present the following list of the more important British Consulates whose officers have been instructed by the Foreign Office to answer inquiries from and given information to Canadians who wish to consult them in reference to trade matters.

Brazil:
Bahia, British Consul.
Rio de Janeiro, British Consul General.

Chile:
Valparaiso, British Consul General.

China:
Harbin, British Consul.

Colombia:
Bagota, British Consul General.

Ecuador:
Quito, British Consul General.

Egypt:
Alexandria, British Consul General.

France:
Havre, British Consul General.
Marseilles, British Consul General.

India:
Calcutta, Director General of Commercial Intelligence.

Italy:
Genoa, British Consul General.
Milan, British Consul.

Mexico:
Mexico, British Consul General.

Netherlands:
Amsterdam, British Consul.

Panama:
Colon, British Consul.
Panama, British Vice-Consul.

Peru:
Lima, British Vice-Consul.

Portugal:
Lisbon, British Consul.

Russia:
Moscow, British Consul General.
Petrograd, British Consul.
Vladivostock, British Consul.
Odessa, British Consul General.

Spain:
Barcelona, British Consul General.
Madrid, British Consul.

Sweden:
Stockholm, British Consul.

Switzerland:
Geneva, British Consul.

Uruguay:
Monte Video, British Vice-Consul.

Venezuela:
Caracas, British Vice-Consul.

PUBLICATIONS OF THE DEPARTMENT OF TRADE AND COMMERCE.

Annual Report.

PART I.—CANADIAN TRADE:—
Imports into and Exports from Canada.
(Itemized and General Statements.)

PART II.—CANADIAN TRADE:—
1. With France.
2. With Germany.
3. With United Kingdom.
4. With United States.

PART III.—CANADIAN TRADE:—
With British and Foreign Countries.
(Except France, Germany, United Kingdom and United States.)

PART IV.—MISCELLANEOUS INFORMATION:—
Bounties.
Commercial Intelligence Service.
Gold and Silver Marking Act, Administration of.
Lumber and Staple Products.
Revenue and Expenditure of Department of Trade and Commerce.
Statistical Record of the Progress of Canada.
Tonnage Tables.

PART V.—GRAIN STATISTICS.

PART VI.—SUBSIDIZED STEAMSHIP SERVICE.

PART VII.—TRADE OF BRITISH AND FOREIGN COUNTRIES.

Monthly Reports.

Census and Statistics.
Trade and Commerce.

Weekly Bulletin.

(*Circulated within Canada only.*)
Containing Reports of Trade Commissioners and General Trade Information.

Miscellaneous Publications.

Canada Year Book.
Census Returns.
Criminal Statistics.
Directory of Foreign Importers.
Grain Inspection in Canada.
List of Licensed Elevators.